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FINAL REPORT OF THE STUDY OF POST HIGH SCHOOL EDUCATION NEEDS IN BUCKS COUNTY, 1968-1980. VOLUME II.
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FIVE WORKING PAPERS PREPARED FOR A STUDY TO DETERMINE POST-HIGH SCHOOL EDUCATIONAL NEEDS IN BUCKS COUNTY AND COURSES OF ACTION FOR MEETING THEM ARE PRESENTED--(1) "POST-HIGH SCHOOL EDUCATIONAL RESOURCES IN AND AROUND BUCKS COUNTY, PENNSYLVANIA, (2) "CHARACTERISTICS OF HIGH SCHOOL SENIORS, BUCKS COUNTY, PENNSYLVANIA," (3) "HIGH SCHOOL SENIOR FOLLOWUP, BUCKS COUNTY, PENNSYLVANIA," (4) "CHARACTERISTICS OF ADULTS IN BUCKS COUNTY, PENNSYLVANIA," AND (5) "COMPARISON OF EDUCATIONAL RESOURCES WITH NEEDS." EACH INCLUDES A TABLE OF CONTENTS, APPENDIXES, AND A DESCRIPTION OF METHODOLOGY IN ADDITION TO FINDINGS AND EDUCATIONAL IMPLICATIONS. A BIBLIOGRAPHY IS INCLUDED. A PROGRESS REPORT OF THE STUDY IS VT 002 737. THE FINAL REPORT AND TWO WORKING PAPERS ARE IN VOLUME I (VT 005 442). (BS)

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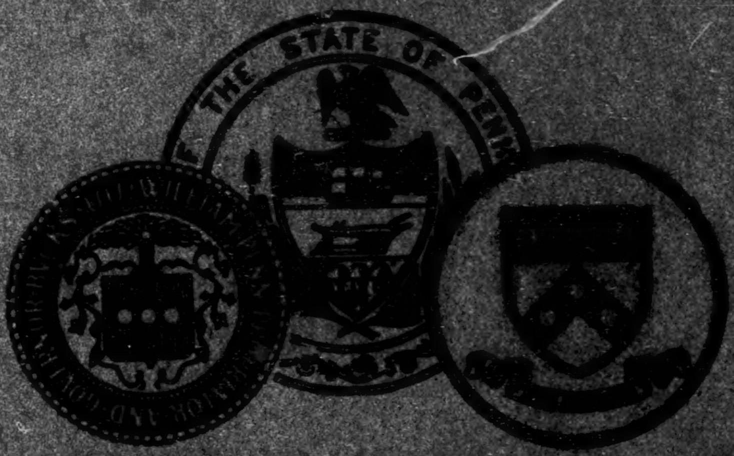
FINAL REPORT


THE STATE OF PENN

A STUDY OF POST HIGH SCHOOL EDUCATION NEEDS IN BUCKS COUNTY 1968-1980

VOL. II

VT005443

FINAL REPORT OF THE STUDY OF POST HIGH SCHOOL EDUCATIONS NEEDS IN BUCKS COUNTY
1968 - 1980

Jointly Submitted By

Bucks County Superintendent of Schools Office and The Govenment Studies Center of the Fels Institute of Local and State Government, University of Pennsylvania

In Cooperation With

The Bureau of Vocational, Technical and Continuing Education, Department of Public Instruction

To

The Bucks County Council of Post High School Education Needs

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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March 1968

County Administration Building
Doylestown, Pennsylvania

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POST HIGH SCHOOL EDUCATIONAL RESOURCES
IN AND AROUND
BUCKS COUNTY, PENNSYLVANIA

Working Paper Number 3

Prepared for
Bucks County Board of School Directors

By
Government Studies Center
Fels Institute of Local and State Government
University of Pennsylvania

August, 1967

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INTRODUCTION

This report on post high school educational resources available to Bucks County, Pennsylvania, residents, is the third of a series of working papers prepared for the Bucks County Board of School Directors to assist in the analysis of post high school educational needs in the County. The first working paper estimated future population growth by school district in Bucks County; the second discussed relations between Employment and Education; other papers will be issued discussing characteristics and aspirations of Bucks County high school seniors, characteristics and educational plans of Bucks County adults, and describing a method of estimating unmet needs for post high school education via a computer algorithm which allocated prospective attendees to available enrollment spaces. The data and results will be used to help generate and evaluate several alternative methods of meeting the unmet needs estimated by the research studies summarized in the working papers.

The Government Studies Center of the Fels Institute of Local and State Government at the University of Pennsylvania is serving as consultant to the Bucks County Board of School Directors, and has primary responsibility for the overall project. Government Studies Center personnel participating in this portion of the project are John K. Parker, project

supervisor; Boyd Z. Palmer, in charge of research design; and Robert R. Cantine, author of this report.

OVERVIEW

The resource picture of post high school education is one of multi-institutional arrangements. However, like many other states, Pennsylvania is undergoing substantial readjustment among its many resources. As these changes are introduced and implemented they are producing some realignment throughout all of the post high school education establishments. In Pennsylvania the community college program represents the most recent and most publicized innovation, causing readjustment in the role performed by colleges and universities, proprietary trade and business schools, and post secondary education in public schools.

Focusing on Bucks County, the resource picture involves a mix of five institutional types, two public agency programs, apprenticeship programs, and employer related educational programs. The total occupied enrollment space in the educational institutions reporting was over 7,000 in the fall of 1966, with about 30% of this space devoted to degree-credit enrollment and the remaining 70% to non-degree enrollment. This distribution is due in large part to the high enrollment in adult continuing education programs generally conducted in the evening at public schools. Total public school enrollment accounted for almost two-thirds of all post high school enrollment in Bucks County.

The Bucks County Community College accounted for 44% of the total degree credit enrollment space; approximately 75% of its student body enrolled in this category. Non-institutional educational resources were relatively small.

Over the next five years the institutions now within Bucks County anticipate providing enrollment space to more than 11,000 students. The Delaware Valley College and Bucks County Community College anticipate first-time degree enrollment to grow by 410 students during this five year period, the Community College anticipating the larger portion of this growth. The continuing education centers of Penn State University and Temple University expect to provide degree credit enrollment space to an additional 330 evening students by the fall of 1971. Post secondary public school programs anticipate accounting for over 90% of the non-degree enrollment growth. No new institutions inside Bucks County have been assumed in this report.

The resources surrounding Bucks County are substantial in size and complexity, servicing a metropolitan area of over 6 million people as well as many from outside the area. The institutions responding in this survey provided enrollment space to almost 80,000 students in the fall of 1966; this total composed of 20,378 first-time day students in degree credit institutions and 59,509 students in other degree and non-degree categories.

These institutions anticipate providing enrollment space for 117,445 by the fall of 1971. If this rate of growth is realized through 1980 they will provide space for over 175,000 adults and degree seeking freshmen.

Despite this fairly substantial overall expected growth, the four year college and universities, which now supply the largest portion of the space considered in this report, expect to grow at a rate of less than 2% annually in providing new day time space to first-time degree students. Much faster growth is anticipated by 2 year colleges and proprietary schools, reflecting the addition of 2 new community colleges and an optimistic viewpoint toward enrollment.

If all these resources, both inside and surrounding Bucks County, are examined from the standpoint of a person seeking to pursue post high school education there seem to be certain patterns which stand out. For the person in the lower financial capability range of less than $600 per year over 12,000 spaces are available during the day and over 47,000 in the evening. At the same time, over 18,000 spaces during the day time would exceed his financial capability unless otherwise supplemented by other income through scholarship, loan, or work programs. A much smaller number of spaces during the evening, approximately 1,800, would exceed his financial capability.

In terms of eligibility constraints, the largest portion of spaces available to those persons without high school diploma or its equivalent are provided through the public school programs and programs offered by some of the proprietary schools. High school diploma or its equivalent broadens the range of options to many of the two year college spaces and much of the evening school space in four year colleges and universities; although, other requirements in terms of demonstrated capability may have to be met at this level. Up to this point over 68,000 spaces are available in a very broad range of programs. When the Scholastic Aptitude Test score is established as an eligibility constraint for degree credit enrollment a person scoring in the 300 to 400 range has a limited number of spaces (approximately 2,800) for which the probability is good that he could attain admission. The person scoring 400 to 500 has open to him a much greater range of possibilities (approximately 10,000 additional spaces). Above this range approximately 7,000 spaces demanding high scores on the Scholastic Aptitude Test are in institutions whose ratios of acceptance are generally less than one-half.

DEFINITIONS

Post high school education - the education of youth and adults outside the formal curriculum of secondary public or private education through the level of undergraduate education.

Institutional types - the division of post high school education into institutional types underlines the mixture of educational resources which participate in this activity. Since classification systems vary sufficiently in much of the printed literature to cause confusion an effort is made here to explain more fully the classification which is used in this report.

The most commonly employed and understood designation is that of 4 year colleges and universities. The authorization to grant bachelor degrees in the various fields of study is the characteristic which exclusively identifies institutions in this class.

The designation of "two year colleges" seems also to be commonly employed but less consistent in its inclusions. Junior and community colleges seem generally to fall in this classification although the vocational and technical curricula of the two institutions are not commonly associated with use of the term "college." In some instances this class includes the 2 year technical schools operating under the auspices of a 4 year college or university. In this report all references to "two year colleges" will include junior colleges, community colleges, and two year technical schools under the auspices of a 4 year programs and services of the parent university as they are called for by the general public and business and professional communities. Their programs expand and contract depending upon this interest and generally speaking are not limited by the size of any facility currently occupied. They cross the spectrum of post high school education programs from degree credit courses to special interest seminars. The organized curriculum is entirely taught during the evening hours.

Public secondary schools constitute the sixth, and final, institutional type. Included within this classification are the secondary schools in Bucks County which offer their facilities and programs to adults and out-of-school youth. This includes the area vocational and technical schools which provide post secondary education in a variety of occupationally related courses of instruction. All courses are taught during the evening hours.

Educational program - business and related, engineering and related, teacher education, health services and related, medical technology, art, music, home economics, liberal arts, agriculture, secretarial, trade and industrial, adult and continuing education, and other. Also included as separately discussed programs are apprenticeships, Manpower Development and Training, and Neighborhood Youth Corps.

Enrollment space - spaces occupied by enrolled students.

Area covered - the original study area proposed in the design phase focused on two areas - within Bucks County and within 45 minute travel time from three centers in Bucks County. However, most Philadelphia institutions would be excluded from the study using this travel distance. Since this was not considered realistic insofar as commuting is concerned, the study area was enlarged to include the City of Philadelphia, Camden, and several other institutions in the surrounding countites.

Cost - the tuition and fees of pursuing a chosen educational program.

Degree credit enrollment - enrollment transferable toward a bachelors degree or higher.

Non-degree enrollment - enrollment not transferable toward a bachelor's degree.

METHODOLOGY

This study involved the development and administration of survey questionnaires for 39 four year colleges and universities, 15 two year colleges, 3 extension centers, 17 continuing education centers, 48 proprietary trade schools, 50 proprietary business and commercial schools, 9 public schools or school districts, and 85 union locals.

The literature on post high school education stresses the wide variations in programs, and types of institutions offering similar programs. To solicit the needed information required designing separate questionnaires suited to the process of practically each institutional type.

By institution the response rates were as follows:

Institution	Number of Institutions	Number Returned
4 year colleges and universities	39	37
2 year colleges (including technical schools)	15	15
Extension centers	3	3
Private trade schools	48	25
Private business schools	50	22
Continuing education centers	17	17
Public schools	9	9
Union Locals	85	6

After mailing of the questionnaires a followup by telephone was made to all 4 and 2 year institutions with evening enrollment. In place of full-time, freshman enrollment, the question was reworded to solicit total undergraduate evening enrollment. Responses on the questionnaire were checked to verify that the correction had been made.

In the case of incomplete answers attempts were made to obtain complete responses by contacting the institutions. In those cases where the institution gave no response to the question of future enrollment space, the current enrollment space was entered for each of the succeeding five years. Where it was possible to complete answers by use of other responses in the questionnaire or other source material, this was done. Scattered source checking on the matter of Scholastic Aptitude Test scores indicated a probable overestimation of the score range exceeded by 95% due either to misinterpretation, or the tendency to use the average score (mean) which is often reported in other public information. However, these responses were not altered.

In most cases where the study dealt with education programs not generally considered as attached to any particular institutional type, as well as in working with national and state data, the research was completed by literature survey and a small number of interviews. The only exception was in the union survey which had to be eliminated due to the response.

BACKGROUND

A. Major Evaluation Problems

The most notable explanation and evaluation of post high school education as a connected series of activities was that completed by the Educational Coordinating Council for the State of Oregon in 1966.[1] Their work was a comprehensive effort to describe, analyze, and evaluate the role of each participant in this process of post high school education. Most other inquiries have focused on one segment of post high school education, and in the process become special purpose studies. The tendency has been generally to focus the inquiry on either (1) colleges and universities (sometimes only the state system), (2) junior and community colleges, or (3) vocational and technical education.

Part of this problem stems from an almost endless number of institutions, agencies, or programs which could be considered as offering post high school education given any particular definition of "education." Furthermore, the broader the scope of coverage the greater the problems of classification and generalization due to the characteristics of each educational institution or program. And last but not least is the difficult task of information gathering which is subject to the limitations of what society decides to record and make available and the way it chooses to record it. As the objects to be studied grow more diversified, the more difficult it usually becomes to locate accurate, comparable, useful data.

Considering the first problem of the inclusiveness of post high school education, the Bucks County study concentrates on the institutions mentioned earlier in the report. The study does not, for example, consider the matter of graduate education. Certain elements of post high school education and training have no real institution to be identified with. Included here are the apprenticeship programs, manpower development and training programs, neighborhood youth corps, and employer education and training (discussed in the Report on Employment and Education). The Bucks County study does consider each of these as an integral part of post high school education.

The problem of classification and generalization is not a secondary problem simply by virtue of being listed second. In any attempt to find a match between demand and resource the primary objective is to establish the common elements and test for their fit. Post high school education unfortunately, or perhaps fortunately, is not well suited to this process. In fact, a great deal of bending and shaping has to be done in order to even begin the groundwork for any such assessment. When the fitting is all over some things are lost in the process. In the case of post high school education as described in this report what is lost is the ability to make substantive distinctions between the courses offered by some of the institutions and the ability to identify each possible course separately and treat it separately. Even the matter of relative costs finds little common ground outside the standard yearly tuition rates of 4 year and 2 year colleges.

This report serves in large part as the resource input to a generalized computer model dealing with the educational needs and resources of Bucks County residents, so it contains the classifications which were made to enable comparisons with student desires. Fourteen educational programs were finally decided upon as satisfactory to provide program orientation; the classes can and should be improved upon in further work. Money costs of the 4 year and 2 year colleges were used as reported for full-time attendance. Part-time costs were converted to a yearly basis by multiplying the semester hour cost by three (the average number of semester hours of a single course) then times two (assuming the course is taken for two semesters). Proprietary trade and business school costs were figured as the average cost to complete the full-time program, or complete one year of the program whichever was less. In the evening programs of the private trade and business schools, the cost per subject was used if the school program was offered in that manner or the charge of the full-time course was used if subjects were not offered individually.

What will be spoken of throughout the report as an "eligibility condition" is the score range on the Scholastic Aptitude Test of the College Entrance Examination Board which was exceeded by 95% of the freshmen class. This applies entirely to the 4 year and 2 year colleges, and the extension centers. In each of the other institutions the condition of high school graduation was used unless otherwise specified.

The third matter of information gathering is closely related to the problem of classification and generalization - both have the problem of comparability. Adding somewhat to the confusion, this study concentrates on the freshman enrollment space in the day school programs of 4 year colleges, 2 year colleges, and extension centers. In all other institutions and all evening programs the total enrollment is described. Where it was possible to find data with a common definition for national and state concerns this was used. Certain parts of the report will indicate that changes in definition made it impossible to trace the growth of post high school education over time.

All these difficulties, however, show clearly that the free choice, flexible process of post high school education, unlike the mandatory elementary and secondary education process, has produced a variety of public and private institutions and programs. Each has its roots in the history of different social forces which have given rise to the institution as a part of the overall growth of post high school education.[2]

The most current and obvious entry in this educational complex of post high school education is the community college. The dimensions of its educational program stretch from college preparatory to career oriented programs. Its substitutability ranges from the first 2 years of a 4 year college or university program, through certain of the extension center programs, proprietary trade and business school programs, continuing education center programs, and post secondary vocational and technical education programs in public schools.

With this new entry into the field of post high school education, with consideration by the State Department of Public Instruction of proposals to conduct a long range policy study for vocational-technical education, and with consideration by the State legislature of a master plan for higher education, it is clear that post high school education is in an unsettled condition in terms of statewide policy.[3] There remains the possibility of a changed accommodation between the commonwealth campus system and the community college system, between the community colleges and the proprietary schools, and between the vocational-technical public schools and the community colleges, and so on through most all the participants. Under such circumstances, the study of these institutions and programs begins with the given fact of an unsettled state policy on the respective roles which ought to be played by each participant.

B. The Nation and Post High School Education

The process of change, however, is certainly not new to education. Over the past half century, there have been profound changes in the educational achievement of American citizens. These changes begin deep in the base of our educational system where once in 1900 only 6 out of every 100 persons 17 years of age graduated from high school. In 1964 approximately 77 out of every 100 persons 17 years of age graduated.[4] Nearly 94,000 persons age 17 graduated in 1900 and 2,302,000 graduated in 1964.

At the post high school level this same profound change is apparent in the enrollment of 4 year and 2 year colleges and universities. First time (freshman), degree enrollment in 4 year institutions has increased 80% in the 10 years between 1955-65, growing from 530,044 to 1,041,025.[5] In the fall of 1966 this same enrollment stood at approximately 1,044,000 students.[6] In 1966 there were 1,582 institutions which provided this space.[7] However, first time degree enrollment is expected to have a less impressive yearly growth rate in the decade 1965-75, increasing to 1,379,000 in 1975, based on the assumption that first time degree enrollment will amount to 49% of the 18 year old population by the end of that period.[8]

A similar experience has occured in the two year institutions. First time degree credit enrollment has almost tripled in the decade between 1955-65, increasing from 139,969 to 400,797.[9] In the fall of 1966 this enrollment stood at approximately 409,000 students.[10] The same pattern of a slower growth rate is expected for 2 year institutions over the next 10 years, increasing their first time degree credit enrollment to 611,000 by 1975 with 80% of this growth expected in publicly controlled institutions.[11]

The most recent national cost figures for attending 4 year and 2 year institutions are available only for the year 1963-64. At that time the median tuition and fees charged full-time undergraduates per year at a public institution stood at $191 for the United States, while in the North Atlantic region the cost was $298. The comparable cost for private schools was $734 and $893 respectively. Median room and board costs range from $600 per year in public institutions to $670 in private institutions.

From the national data there seem to be several important conclusions. First, enrollment in 4 year institutions will continue to rise at a slower pace since those children born immediately following World War II will have already entered higher education institutions. The changing rate of attendance of 18 year olds will not be sufficient to offset the change in population size. Secondly, the bulk of first time degree credit enrollment in two year institutions is expected to be accommodated by public institutions. Furthermore, approximately one-half of the degree credit enrollment in 2 year institutions is now, and is expected to be in the future, part-time enrollment. Third, the share of degree enrollment accommodated by two year institutions over the next decade will remain relatively stable (between 28% and 30%).[12]

National data on enrollment in other forms of post high school education is much less complete, both in the sense of time series data and in terms of which years are reported, than what is recorded and reported for 4 year and 2 year institutions. However, we can sketch in the magnitude of these various efforts through use of what references are available. In 1964 the Office of Education reported 2,425,149 enrollments in post secondary vocational and technical programs offered in public schools (not including community colleges).[13] This represented an increase of 157,000 enrollments from the 1963 fiscal year in federally aided vocational and technical programs.

The Manpower Report of The President in April, 1967, reported 183,955 registered apprentices in training at the end of 1965. This represented a growth of approximately 13,400 apprentices in training over the preceeding year. The trend of apprentices in training, however, reflect in large part the interaction between the economy, i.e., the demand for labor skills, and the apprentice programs. Apprentices in training declined in the years 1959, 1960, 1961 and then began an increase in 1962 which has continued through 1965. New registrations and reinstatements stood at their highest level in 1965 - 68,507 - since 1956. By far the largest number of apprentices are in training in the construction trades (114,932) with metal working and printing trades second and third, respectively.[14]

Two of the more prominent public efforts to work with the economically disadvantaged - Neighborhood Youth Corps and Manpower Development and Training - also showed sizeable activity. From 1962 through 1966 the MDT program enrolled over 599,000 persons and completed the training of over 337,000.[15] In 1966 there were 229,989 enrollees and 136,122 completed training. On-the-job MDT programs enrolled 116,600 and institutional MDT programs enrolled 482,100. Over 73% of the enrollees in the institutional programs were being trained for clerical, sales, skilled, and semiskilled occupations. Over 82% of the enrollees in on-the-job MDT programs were being trained for service, skilled, and semi-skilled occupations.

Neighborhood Youth Corps concentrated its efforts on youth (ages 16-21) from low income families, attempting to make it possible for them to complete their schooling through income earned in part-time jobs with non-profit agencies and institutions. In 1966 approximately 490,000 youths ages 16-21 were enrolled, about two-thirds of whom were in school and one-third out of school when enrolled.[16]

The proprietary schools, or specialty schools as some call them, also abound across the country. Clarke and Sloan reported more than 35,000 proprietary schools with an enrollment in excess of 5,000,000 people. As they summed it up,

> "The combined curricula of the specialty schools cover such a wide range of subject matter that about every facet of American life is reflected in them. Business subjects predominate, but training for the skilled trades, preparation for many semi-professional and service occupations, recreational and self-improvement activities, and many others are included. The students of both sexes, vary so in age, educational background, ambition, and capability that almost a complete cross section of the American population is represented."[17]

C. The State and Post High School Education

Before examining the magnitude of post high school education in Pennsylvania, it is important first to discuss the relationship of the State to post high school education. This relationship can be viewed in three dimensions - (1) regulatory, (2) financial, and (3) innovative.

The State exercises some manner of regulatory authority over most all forms of post high school education. This regulation ranges from the chartering of private junior colleges by the Court of Common Pleas after approval by the Department of

Public Instruction, through the more comprehensive and detailed regulation and operation of the state university and state college system. Regulation initially is exercised by the State at the point of establishment of post high school education institutions and in the establishment of some post high school education programs. Before any community college can be built, it must persuade the State that its existence is justified.[18] Private junior colleges must receive approval from the State Department of Public Instruction and the Court of Common Pleas.[19] Proprietary trade and business schools must be licensed by the State Board of Private Trade Schools or State Board of Private Business Schools.[20] The establishment of a new commonwealth campus must be approved by the Board of Trustees of the State University and financed by the State legislature. This state regulatory authority also extends to the public programs for educating the economically disadvantaged; particularly, in manpower development and training.

Regulatory authority is also exercised by the State over the operation of post high school education, but this occurs most extensively in terms of the operation of the state university and state college system.

This again points to a basic fact of post high school education in Pennsylvania - the authority to effect change in the largest part of post high school education rests with the State, either through existing laws or through the enactment of new ones.

As a financial agent in Pennsylvania's post high school education, the State has largely devoted its resources to 4 year colleges and universities. The largest share of this money has gone to the state owned and state aided institutions although in recent years there have occured some major changes. As the community college system matures, a large financial commitment is due this resource as a result of legislative commitments in the form of operating and capital expense subsidies of 1/3-2/3 and 1/2-1/2 respectively.[21] No direct financial assistance is given to adult education in public schools, proprietary trade and business schools, apprenticeship programs, or the Neighborhood Youth Corps programs. The aggregate amount appropriated by the State in support of the operation of the 4 year colleges and universities during the 1966-67 fiscal year amounted to approximately $153,600,000 and the requested amount for 1967-68 is $220,990,550.[22] Community college appropriations for 1966-67 were $6,300,000 and the amount requested for 1967-68 is $10,223,116.[23] The State General Authority appropriated additional amounts from Authority bonds for the construction of higher education facilities.

As an innovator and developer in the field of post high school education, the State has been undergoing a series of evaluations and appraisals. These efforts are reflected in (1) Donald D. Dauwalder and Associates, The Administration and

Financing of Vocational- Technical in Pennsylvania, (1964), (2) Earl J. McGrath, The Organization of State Colleges Within the Commonwealth of Pennsylvania, (1965), (3) Ralph R. Fields and Associates, Community Colleges in Pennsylvania, (1965), (4) Academy for Educational Development, Inc., Elements of a Master Plan for Higher Education in Pennsylvania, (1966), and (5) State Board of Education, Report of Progress on a Master Plan for Higher Education, (1966). Even without considering the unused potential of the State for innovation in the field of post high school education, it is clear in the scope covered by these five studies that State policy is a major factor in the allocation of roles to various educational enterprises and is a major determinant of the opportunities open to residents of Pennsylvania for continued education beyond high school.

Where does Pennsylvania stand today in post high school education? During the period 1955-1965 total enrollment in all two and four year institutions grew from 159,778 to 324,059.[24] In 1965, over 52,000 of these students came from other states and countries.[25] Non-degree enrollment in 1965 accounted for 12,757 students, the remainder was degree credit enrollment.[26]

First-time, degree credit enrollment in 4 year institutions grew over 30% between 1963-1965 from 44,260 to 58,551.[27] This figure stood at approximately 63,000 in the fall of 1966.[28] The 1966 enrollment was distributed among 114 four year institutions.[29]

During the period 1955-1965 two year junior and community colleges increased their overall enrollment from 2,237 to over 21,891. Community colleges showed particularly strong gains, increasing their enrollment almost 5,000 students this past year while junior colleges lost enrollment from 14,262 to 11,327.[30] In 1965 the non-degree enrollment of community colleges, excluding adult education, comprised nearly 60% of their overall enrollment.[31] First-time degree credit enrollment grew from 3,537 to 7,605 in the two years between 1963-1965.[32]

Other forms of post high school education also engaged a sizeable number of Pennsylvania's residents. In 1964 there were 56,500 adults and out of school youth engaged in post secondary vocational and technical programs in federally aided categories.[33] There were 8,090 registered apprentices in training at the end of 1965, 9,439 at the end of 1966, and 10,024 as of July 1, 1967.[34] Manpower Development and Training programs had enrolled 5,452 trainees during 1966 and 18,174 younger persons age 16-21 were enrolled in the Neighborhood Youth Corps in March, 1967.[35] Proprietary trade and business schools enrolled between 36,000 and 40,000 students in 1966.[36] Over 100,000 were involved in adult and continuing education in the public schools.[37]

All of this adds up to the fact that post high school education is a big enterprise in Pennsylvania. Not including those engaged in post high school education through company training, for which no information is available, these education activities engage the attention and time of more than 500,000 persons in the State of Pennsylvania.

D. Bucks County and Post High School Education

The role of Bucks County as regulator is far more restricted than the State. The County does not have the authority to establish or charter 4 year colleges and universities nor does it have the ultimate authority for establishing a community college. Furthermore, it does not have the authority to operate a 4 year college or university and currently has no authority over the operation of those already in existence. Also, proprietary trade and business school represent another segment of post high school education over which the County exercises no regulatory authority. The County does, however, have a direct role in the operation of its community college through the appropriation of public funds for the college, through the ability to draw resources from the General State Authority for building expansion, and through trustees appointed by the County to guide the operation of the college. This represents the first entrance of any substantial nature by the County in post high school education and reflects a state policy of turning over to the counties a major share of the responsibility for improving it. In addition, the school districts within Bucks County exercise direct regulatory control over the establishment and operation of post-secondary vocational and technical programs, and adult and continuing education programs taught in the public schools (including the availability of space, teachers, and materials for such programs as apprenticeship training, MDT, and jobs for Neighborhood Youth Corps enrollees). Inaugurating and maintaining the programs is a voluntary act on the part of the school district.

As a financial agent in post high school education, the County devotes most of its resources to the community college and those costs which are involved in supporting adult and continuing education and post-secondary vocational and technical programs taught in the public schools. The County supplies approximately 1/3 of the community college budget; this contribution will amount to about $600,000 in the coming year.[38] Since all the school districts offering adult and continuing education programs spent more than the $400 per pupil reimbursement on the elementary and secondary education programs, the cost to the school districts for these programs was that over and above the fee collected from participants.

As an innovator or developer in the field of post high school education Bucks County has options which fall into two categories: (1) those which can be implemented and carried to completion by virtue of its own decisions, and (2) those which require the County to persuade other agencies or institutions to perform certain roles in the County's post high school education program. The former would include innovations and improvements in those programs already functioning under its jurisdiction, e.g., adult and continuing education in the public schools, post secondary vocational and technical education, innovations in the community college program, expanded counseling services, etc. The latter would include options to invite and encourage the location of extension centers, proprietary schools, apprenticeship training, and other forms of post high school education into Bucks County or at least within a reasonable distance of Bucks County. Within these boundaries, then, the County has an opportunity to shape a plan of post high school education.

THE RESOURCES IN AND SURROUNDING BUCKS COUNTY

A. Institutional Resources Within Bucks County

Unlike the summary look at post high school education nationally and in the state, this segment of the report is concerned with a detailed look at what post high school education resources are in existence in and around Bucks County. Secondly, what conditions, i.e., costs and eligibility factors, are attached to these resources. Third, what are the prospects in future years for the growth of these resources.

Table I shows the post high school education resources within Bucks County that are currently in existence and operation.

There is only one 4 year institution which can award a bachelor's degree within Bucks County. The Delaware Valley College of Science and Agriculture offers programs in agriculture, chemistry, biology, and business administration during the day, and a variety of courses in business and liberal arts (science and non-science related) in the evening school. In the fall of 1966 the college provided enrollment space for 258 freshmen in the day programs and a total of 208 evening students. The day enrollemnt space was occupied by 37 freshmen in the business program, 162 in the agriculture program, and 59 in the liberal arts (science related) program. Evening enrollment was concentrated in the business and liberal arts programs.

TABLE I

POST HIGH SCHOOL EDUCATION INSTITUTIONS WITHIN BUCKS COUNTY

TYPE OF INSTITUTION Name	Time	Ave. Yrly. Cost	Bus.	Eng.	Teach. Ed.	Health Ser.	Lib. Arts	Agric.	Sec'y.	Trade & Ind.	Adult & Cont. Ed.	Other	Total
4 Year College													
Del. Valley College of	Day*	$1,124	37				59	162					258
Agric. & Science	Eve**	296	95				113						208
2 Year College													
Bucks County Community	Day***	$ 172	88	43	132		184		68			3	518
College	Eve***	84	168	70	123		134		22			39	556
Continuing Ed. Centers													
Bucks County - Temple U.	Eve*	$ 84					395						395
Doylestown - Penn State	Eve***	84			86						12		98
Levittown - Penn State	Eve*	84			89								89
Public Schools													
Upper Bucks Voc/Tech	Eve**	$		142						341			483
Lower Bucks Voc/Tech	Eve**			126		22		13		522			683
Pennridge School Dist.	Eve**	50									137		137
Quakertown School Dist.	Eve**	" "									118		118
Pennsbury School Dist.	Eve**	" "									506		506
Neshaminy School Dist.	Eve**	" "									350		350
Bristol Twp. Schl. Dist.	Eve**	" "									598		598
Doylestown School Dist.	Eve**	" "									761		761
Centennial Schools	Eve**	" "									1,140		1,140

* Degree enrollment only
** Non-degree enrollment only
** Includes degree and non-degree

The day space was conditioned by a cost of $1124 per year and was occupied by an enrollment of which 95% scored in excess of 350 on the Scholastic Aptitude Test. The plans for growth of this institution indicate a fall, 1971 enrollment space for 320 freshmen day students and 350 evening students.

Two other institutional types offer degree credit programs in Bucks County, but neither offer the opportunity to complete a bachelor's degree.[39] The continuing education centers of the Pennsylvania State University and Temple University are not degree granting institutions. Both operate their facilities during the evening hours exclusively. The Bucks County Center serves as the only extension location in Bucks County for Temple University; all courses offered are taught at this one location but the courses offered may vary from year to year depending on interest in the course. Pennsylvania State University continuing education centers are in two different locations and each location generally offers a different listing of courses depending on the interest in any particular course. Together with Temple University's center they provided enrollment space in the fall term of 1966 to 175 in teacher education, 395 in liberal arts, and 12 in continuing education courses, evidencing a much stronger interest by the students in degree credit enrollment. Costs ranged from $80 per year for degree credit courses to an average of $100 for special interest courses. Eligibility conditions ranged from high school graduation in the undergraduate credit courses to varying educational ahcievement for special interest courses.

The possibility of obtaining a two year degree, either for transfer to a four year school or in a variety of career programs not leading toward a bachelor's degree, exists at the Bucks County Community College. In the fall of 1966 the Community College provided space for a freshmen, degree credit enrollment of 404 students during the day. The daytime degree enrollment space was distributed by program as follows:

Program	Fall 1966 Enrollment
Liberal Arts (non-science)	83
Liberal Arts (science)	101
Teacher Education	132
Business	88

The College provided enrollment space for 114 freshmen, non-degree students during the day who were distributed as follows:

Program	Fall 1966 Enrollment
Engineering (Elec. Technology and Data Processing Tech.)	43
Secretarial	68
Other Studies (includes correctional administration, etc.)	3

Evening degree enrollment space was provided to approximately 425 students. The program distribution of this space differed somewhat from the day school with 78 in liberal arts (non-science), 56 in liberal arts (science), 123 in teacher education and 168 in business. (These estimates calculated based on the enrollment distribution of those declaring interest in obtaining associate degrees.)

Evening non-degree enrollment space was about 1/3 that occupied by degree enrollment, or 131 students. The students were distributed in the following manner (based on the same method used above).

Program	Fall 1966 Enrollment
Engineering (Elec. Technology and Data Processing Tech.)	70
Secretarial	22
Other Studies	39

Full-time space, both degree and non-degree, was conditioned by a cost of $175 per year. Evening enrollment space had a cost of $60 per year. Almost all applying were accepted for admission; Scholastic Aptitude and American College Test scores were used for placement purposes only. Evening school space was open to all those who have graduated from high school.

Beyond the regular evening and day programs the College has been host, and participated in, several programs of special interest to groups in the community. These groups make use of the College facilities over weekends or during the evening hours and often invite faculty or administration personnel to participate in the seminars. Approximately 150 participated in these programs in 1966.

With completion of the new classroom and office space this fall the College expects to be capable of providing space for all the expected enrollment.

	Day		Evening	
	Transfer	Non-Transfer	Transfer	Non-Transfer
1967-68	612	236	370	190
1968-69	645	255	390	195
1969-70	682	270	405	205
1970-71	725	280	425	210
1971-72	755	300	445	215

These expansion plans call for the College to remain in the same location.

Adult and continuing education in the public schools exists in seven of the thirteen school districts in Bucks County. Enrollment is almost exclusively in the General Adult Education courses which includes typing, art, and a variety of avocational courses. Total enrollment in adult and continuing education for the fall 1966 term was 3700, 289 of which were in the Standard Evening High School, 34 in Citizenship and Literacy, 3,277 in General Adult Education, and 100 in Adult Basic Education. The costs vary widely but would average $30 per year, excluding Adult Basic Education which is free. Eligibility can be meaningfully spoken of as a condition of enrollment only in the Standard Evening High School program (for non-high school graduates seeking a diploma) and Adult Basic Education (for those with less

than 8th grade education). Total enrollment in the fall, 1971, is expected to increase to 6,695 persons.

The area vocational and technical schools contribute to post high school education largely through their adult evening school programs which are open at little or no cost to residents of the service districts or on a tuition basis to those outside the service boundary. There are currently two area vocational technical schools in Bucks County, one servicing lower Bucks County the other upper Bucks County, with a third expected in 1968. Costs of the evening programs are split between the state and local districts, with the state paying $3.20 per hour of an instructors salary for each hour of instruction while the remaining costs of operation and capital outlay are met through the taxing power of the contributory school districts.

The Lower Bucks County Technical School was the first school of this type established in Bucks County, being opened in 1958 and enlarged in 1965. Forty-six courses were offered to the adult public in the fall of 1966 on condition that the number of registrants be sufficient to justify offering the course. Enrollment was sufficient to justify teaching 31 of the courses. Most of these 31 concentrated in the trade and industrial and technical categories. Courses ranged from blueprint reading to an experimental program in horticulture and floriculture for employees of the florist and landscape industries. Two courses were taught for apprentices, one in electricity and one in plumbing, both courses having been established in cooperation with the respective craft associations. Facilities of the school are used as a test center for the licensing of master plumbers.

The most noticeable change in curriculum orientation has come about in the field of electronics as it relates to the computer industry. As a measure of its significance the school plans to inaugurate this fall an electromechanical training program in cooperation with the computer industry designed to provide skilled employees for the servicing of electronic computers.

The Upper Bucks County Technical School was opened for the first time in September 1965. In the fall of 1966 the adult evening program offered 27 courses to the public and enrollment was sufficient to actually operate 18 courses of instruction. A wide variety of courses were offered similar to the distribution of courses offered at the Lower Bucks County Technical School. No courses were offered for apprentices in the fall of 1966 although attempts are being continued to reach an agreement with the craft associations. No courses were offered in the health services area, none in agriculture, and the course offered in distributive education was dropped due to insufficient enrollment.

The major cooperative venture now being undertaken by the Upper Bucks Technical School involves the National Tool, Dye, and Precision Machine Tool Manufacturing Association in the establishment of an apprenticeship program requiring 100 hours of secondary course instruction in machine tools financed under Section 2508.3 of Pennsylvania's School Laws supplemented annually by 144 hours of course instruction in the evening school which is financed under the Federal Manpower Development and Training Act grant given to the National Association. Eight of the current graduates will participate in the program beginning this fall.

Taken together these two schools offered 34 different courses, primarily concentrated in the trade and industrial related vocations. They provided occupied enrollment space for 863 students in the trade and industrial courses, 268 in the engineering related (technical) programs, 22 in the health servide programs, and 13 in agriculture. Courses are taught two nights each week at the Lower Bucks County Technical School and four nights each week at the Upper Bucks County Technical School. Taken together the two schools expect to provide occupied enrollment space for 1,520 students in the fall of 1971. The Upper Bucks County Technical School expects to reach its capacity in the fall of 1968 of 650 students.

Of the two public training and education programs, Neighborhood Youth Corps is the only one established and functioning in Bucks County. In 1965 an attempt was made to inaugurate an MDT program under the State Manpower Development and Training office but the effort failed for lack of trainees who met the age and income requirements; other efforts have been made to use the program in the area vocational and technical schools but with limited success. The Neighborhood Youth Corps program was established in cooperation with the County Board of School Directors; at the present time the program has an actual enrollment of 170 persons with approval to expand the enrollment to 300 persons age 16-21. Ninety percent of the cost is paid by the federal government during the first three years and 10% is borne by the local sponsor. The Bucks County sponsor reported more positions requested than persons to fill them.

Despite the inability to generate an active manpower development and training program through the Manpower and Development Training office of the Commonwealth, there has been success in the inauguration of an on-the-job training program from funds allocated to the manpower development program but channeled through the Apprenticeship Training Council for the Philadelphia labor market area to the Bucks County Industrial Development Corporation. The training program, designed to employ the economically disadvantaged was undertaken by the Industrial Development Corporation which received a $108,000 grant in 1966. The Industrial Development Corporation has acted as prime contractor in the project while industry has served as the subcontractor for the training of persons on the unemployment list of the State Employment Office. The trainees are hired by the employers and trained by personnel of the employer.

Employees receive regular wages while under training. In 1966 there were 188 who completed training. The Industrial Development Corporation has filed for a second year grant to continue the program.

As reported earlier in the report, an attempt through survey questionnaire to obtain information on union sponsored apprenticeship programs in Bucks County did not produce sufficient response for any real comment. It should be pointed out, however, that the difficulty of narrowing any study of apprenticeships down to the geographic area of Bucks County is difficult in any case due to the organization of the labor unions themselves as well as the constant movement of labor to jobs throughout the metropolitan area.[40] Particularly in the construction trades where apprenticeships are the most numerous, employers move in and out of different political jurisdictions. The only apprenticeship training utilizing the education facilities of Bucks County is that previously mentioned at the Lower Bucks County Technical School in plumbing and electricity.

B. Institutional Resources Surrounding Bucks County

A short distance beyond the boundaries of Bucks County one can find an abundance of post high school institutions. To provide sufficient penetration into this collection of post high school institutions the study area was enlarged to include

Philadelphia, Camden, and schools in surrounding counties which would have been ommitted with the original 45 minute travel time limit.

Within this distance the following institutions were studied (see Appendix for complete list of institutions).

Type	Number
4 year Colleges and Universities	36
2 year Colleges (including technical schools)	14
Extension Centers	3
Continuing Education Centers	14
Proprietary Trade and Business Schools	47

No attempt was made to gather information on adult and continuing education in public schools or post secondary vocational and technical training in public schools since it was assumed that this option did not exist in institutions outside of the County for Bucks County residents. Also no attempt was made to determine the extent of MDT, NYC, and other similar public agency programs outside of Bucks County for essentially the same reason. In these segments of post high school education it was assumed that Bucks County must provide the resources to meet the interests and needs of its residents.

Considering the large number of institutions and programs within this distance from Bucks County it would not be practical to discuss them in the individual manner done for those within Bucks County. They are most meaningfully presented in their aggregate potential through a basic data matrix which combines the elements of program offering, occupied enrollment space, cost, time of program offering, and eligibility conditions for all the institutions. Tables II through XVI summarize all this data for those institutions reporting.

COURSE NUMBER.. 1 . [redacted] AND RELATED

ENROLLMENT SPACE BY INSTITUTION TYPE, PROGRAM, COST, AND ELIGIBILITY FOR STUDY AREA AROUND BUCKS COUNTY

SAT SCORE REQ.	COST REQ.	FOUR YEAR DEGREE		TWO YEAR DEGREE		TWO YEAR NON-DEGREE		EXTENSION DEGREE		EXTENSION NON-DEGREE		BUSINESS SCHOOL		TRADE SCHOOL		CONTINUING EDUCATION		PUBLIC SCHOOL	
		DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE
NONE	LT 200	0	9455	0	777	0	670	0	0	0	0	47	515	895	612	0	638	0	0
NONE	LT 400	0	3058	0	0	218	0	0	0	0	0	51	246	0	0	0	0	0	0
NONE	LT 600	0	0	80	0	67	0	0	0	0	0	0	59	28	20	0	0	0	0
NONE	LT 800	0	0	0	0	0	0	0	0	0	0	241	30	0	0	0	0	0	0
NONE	LT1000	0	0	276	0	31	0	0	0	0	0	95	10	0	0	0	0	0	0
NONE	LT1500	0	0	0	0	0	0	0	0	0	0	5	0	100	0	0	0	0	0
NONE	GT1500	0	0	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0
300+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 600	0	0	0	0	0	0	57	0	0	0	0	0	0	0	0	0	0	0
350+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT1500	424	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	GT1500	0	0	0	0	70	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 400	0	0	0	0	0	0	0	0	38	0	0	0	0	0	0	0	0	0
400+	LT 600	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT1000	0	0	0	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT1500	453	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT1500	384	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	GT1500	621	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	GT1500	348	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL ENROLLMENT		2283	12513	356	777	426	670	57	0	38	0	499	860	1023	632	0	638	0	0

COURSE NUMBER 2 ENGINEERING AND RELATED

ENROLLMENT SPACE BY INSTITUTION TYPE, PROGRAM, COST, AND ELIGIBILITY
FOR STUDY AREA AROUND BUCKS COUNTY

SAT SCORE REQ.	COST REQ.	FOUR YEAR DEGREE		TWO YEAR DEGREE		TWO YEAR NON-DEGREE		EXTENSION DEGREE		EXTENSION NON-DEGREE		BUSINESS SCHOOL		TRADE SCHOOL		CONTINUING EDUCATION		PUBLIC SCHOOL	
		DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE
NONE	LT 200	0	261	0	0	0	1823	0	0	0	0	0	22	659	591	0	1137	0	0
NONE	LT 400	0	1940	0	0	56	0	0	0	0	0	0	0	0	365	0	0	0	0
NONE	LT 600	0	0	0	0	68	0	0	0	0	0	0	0	235	195	0	0	0	0
NONE	LT 800	0	0	0	0	0	0	0	0	0	0	30	0	130	0	0	0	0	0
NONE	LT1000	0	0	0	0	0	0	0	0	0	0	204	479	120	0	0	0	0	0
NONE	LT1500	0	0	0	0	0	0	0	0	0	0	775	610	200	0	0	0	0	0
NONE	GT1500	0	0	0	0	0	0	0	0	0	0	331	0	141	39	0	0	0	0
300+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 600	0	0	0	0	0	0	0	0	82	0	0	0	0	0	0	0	0	0
300+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 600	0	0	0	0	0	0	56	0	0	0	0	0	0	0	0	0	0	0
350+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT1500	0	0	175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 400	0	0	0	0	0	0	0	0	44	0	0	0	0	0	0	0	0	0
400+	LT 600	0	0	0	0	450	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT1000	0	0	0	0	126	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT1500	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT1500	512	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	GT1500	766	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
550+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	GT1500	137	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL ENROLLMENT		1436	2201	175	0	700	1823	56	0	126	0	1340	1111	1485	1190	0	1137	0	0

COURSE NUMBER 3 TEACHER EDUCATION

ENROLLMENT SPACE BY INSTITUTION TYPE, PROGRAM, COST, AND ELIGIBILITY
FOR STUDY AREA AROUND BUCKS COUNTY

SAT SCORE REQ.	COST REQ.	FOUR YEAR DEGREE		TWO YEAR DEGREE		TWO YEAR NON-DEGREE		EXTENSION DEGREE		EXTENSION NON-DEGREE		BUSINESS SCHOOL		TRADE SCHOOL		CONTINUING EDUCATION		PUBLIC SCHOOL	
		DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE
NONE	LT 200	0	8199	0	10	0	0	0	0	0	0	0	0	0	0	0	947	0	0
NONE	LT 400	0	255	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT 600	0	0	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 600	0	0	0	0	0	0	93	0	0	0	0	0	0	0	0	0	0	0
350+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	GT1500	0	0	184	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 600	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT1500	158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 400	709	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT1500	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL ENROLLMENT		970	8454	289	50	0	0	93	0	0	0	0	0	0-	0	0	947	0	0

COURSE NUMBER 4 HEALTH SERVICES

ENROLLMENT SPACE BY INSTITUTION TYPE, PROGRAM, COST, AND ELIGIBILITY
FOR STUDY AREA AROUND BUCKS COUNTY

SAT SCORE REQ.	COST REQ.	FOUR YEAR DEGREE		TWO YEAR DEGREE		TWO YEAR NON-DEGREE		EXTENSION DEGREE		EXTENSION NON-DEGREE		BUSINESS SCHOOL		TRADE SCHOOL		CONTINUING EDUCATION		PUBLIC SCHOOL	
		DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE
NONE	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT 600	0	0	105	0	0	0	0	0	0	0	0	0	60	81	0	0	0	0
NONE	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	53	0	0	0	0	0
NONE	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	300	0	0	0	0	0
NONE	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 600	0	0	0	0	0	0	0	0	143	0	0	0	0	0	0	0	0	0
300+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT1500	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	GT1500	69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	GT1500	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL ENROLLMENT		89	0	135	0	0	0	0	0	143	0	0	0	413	81	0	0	0	0

COURSE NUMBER -- 5 MEDICAL TECHNOLOGY

ENROLLMENT SPACE BY INSTITUTION TYPE, PROGRAM, COST, AND ELIGIBILITY
FOR STUDY AREA AROUND BUCKS COUNTY

SAT SCORE REQ.	COST REQ.	FOUR YEAR DEGREE		TWO YEAR DEGREE		TWO YEAR NON-DEGREE		EXTENSION DEGREE		EXTENSION NON-DEGREE		BUSINESS SCHOOL		TRADE SCHOOL		CONTINUING EDUCATION		PUBLIC SCHOOL	
		DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE
NONE	LT 200	0	229	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT1500	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	GT1500	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 600	63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT1500	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	GT1500	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 800	0	0	0	0	61	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT1500	139	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT1500	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	GT1500	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	GT1500	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL ENROLLMENT		253	229	5	0	76	0	0	0	0	0	0	0	0	0	0	0	0	0

COURSE NUMBER 6 ART

ENROLLMENT SPACE BY INSTITUTION TYPE, PROGRAM, COST, AND ELIGIBILITY FOR STUDY AREA AROUND BUCKS COUNTY

SAT SCORE REQ.	COST REQ.	FOUR YEAR DEGREE DAY	FOUR YEAR DEGREE EVE	TWO YEAR DEGREE DAY	TWO YEAR DEGREE EVE	TWO YEAR NON-DEGREE DAY	TWO YEAR NON-DEGREE EVE	EXTENSION DEGREE DAY	EXTENSION DEGREE EVE	EXTENSION NON-DEGREE DAY	EXTENSION NON-DEGREE EVE	BUSINESS SCHOOL DAY	BUSINESS SCHOOL EVE	TRADE SCHOOL DAY	TRADE SCHOOL EVE	CONTINUING EDUCATION DAY	CONTINUING EDUCATION EVE	PUBLIC SCHOOL DAY	PUBLIC SCHOOL EVE
NONE	LT 200	0	204	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT 400	0	655	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	145	0	0	0	0	0
NONE	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT1500	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 600	120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT1500	269	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 400	156	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT1500	321	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL ENROLLMENT		905	859	0	0	0	0	0	0	0	0	0	0	145	0	0	0	0	0

COURSE NUMBER 7 MUSIC

ENROLLMENT SPACE BY INSTITUTION TYPE, PROGRAM, COST, AND ELIGIBILITY FOR STUDY AREA AROUND BUCKS COUNTY

SAT SCORE REQ.	COST REQ.	FOUR YEAR DEGREE		TWO YEAR DEGREE		TWO YEAR NON-DEGREE		EXTENSION DEGREE		EXTENSION NON-DEGREE		BUSINESS SCHOOL		TRADE SCHOOL		CONTINUING EDUCATION		PUBLIC SCHOOL	
		DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE
NONE	LT 200	17	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	250	0	0	0	0
NONE	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	0
NONE	LT1500	109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 600	123	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT1500	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL ENROLLMENT		253	33	0	0	0	0	0	0	0	0	0	0	15	250	0	0	0	0

COURSE NUMBER 8 HOME ECONOMICS

ENROLLMENT SPACE BY INSTITUTION TYPE, PROGRAM, COST, AND ELIGIBILITY
FOR STUDY AREA AROUND BUCKS COUNTY

SAT SCORE REQ.	COST REQ.	FOUR YEAR DEGREE		TWO YEAR DEGREE		TWO YEAR NON-DEGREE		EXTENSION DEGREE		EXTENSION NON-DEGREE		BUSINESS SCHOOL		TRADE SCHOOL		CONTINUING EDUCATION		PUBLIC SCHOOL	
		DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE
NONE	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT1500	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL ENROLLMENT		38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

COURSE NUMBER 9 LIBERAL ARTS

ENROLLMENT SPACE BY INSTITUTION TYPE, PROGRAM, COST, AND ELIGIBILITY FOR STUDY AREA AROUND BUCKS COUNTY

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SAT SCORE REQ.	COST REQ.	FOUR YEAR DEGREE		TWO YEAR DEGREE		TWO YEAR NON-DEGREE		EXTENSION DEGREE		EXTENSION NON-DEGREE		BUSINESS SCHOOL		TRADE SCHOOL		CONTINUING EDUCATION		PUBLIC SCHOOL	
		DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE
NONE	LT 200	0	7562	0	556	0	0	0	0	0	0	0	0	0	0	0	350	0	0
NONE	LT 400	0	2106	564	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT 600	0	0	165	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT1000	0	0	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	GT1500	0	0	87	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 200	225	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 600	0	0	0	0	0	0	295	0	0	0	0	0	0	0	0	0	0	0
350+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT1500	198	0	525	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	GT1500	0	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 400	0	0	0	0	0	0	250	0	0	0	0	0	0	0	0	0	0	0
400+	LT 600	3482	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 800	320	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT1500	765	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	GT1500	533	0	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 400	247	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT1500	779	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT1500	1137	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	GT1500	1738	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	GT1500	1520	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL ENROLLMENT		10944	9668	1476	566	0	0	545	0	0	0	0	0	0	0	0	350	0	0

COURSE NUMBER 10 AGRICULTURE

ENROLLMENT SPACE BY INSTITUTION TYPE, PROGRAM, COST, AND ELIGIBILITY FOR STUDY AREA AROUND BUCKS COUNTY

SAT SCORE REQ.	COST REQ.	FOUR YEAR DEGREE		TWO YEAR DEGREE		TWO YEAR NON-DEGREE		EXTENSION DEGREE		EXTENSION NON-DEGREE		BUSINESS SCHOOL		TRADE SCHOOL		CONTINUING EDUCATION		PUBLIC SCHOOL	
		DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE
NONE	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL ENROLLMENT		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

COURSE NUMBER 11 SECRETARIAL

ENROLLMENT SPACE BY INSTITUTION TYPE, PROGRAM, COST, AND ELIGIBILITY FOR STUDY AREA AROUND BUCKS COUNTY

SAT SCORE REQ.	COST REQ.	FOUR YEAR DEGREE		TWO YEAR DEGREE		TWO YEAR NON-DEGREE		EXTENSION DEGREE		EXTENSION NON-DEGREE		BUSINESS SCHOOL		TRADE SCHOOL		CONTINUING EDUCATION		PUBLIC SCHOOL	
		DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE
NONE	LT 200	0	0	0	0	0	510	0	0	0	0	190	485	0	0	0	0	0	0
NONE	LT 400	0	0	0	0	64	0	0	0	0	0	0	124	0	0	0	0	0	0
NONE	LT 600	0	0	0	0	33	0	0	0	0	0	38	154	0	0	0	0	0	0
NONE	LT 800	0	0	0	0	0	0	0	0	0	0	364	0	0	0	0	0	0	0
NONE	LT1000	0	0	0	0	356	0	0	0	0	0	101	30	0	0	0	0	0	0
NONE	LT1500	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0
NONE	GT1500	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0
300+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	GT1500	0	0	0	0	28	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT1500	0	0	0	0	51	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL ENROLLMENT		0	0	0	0	532	510	0	0	0	0	725	793	0	0	0	0	0	0

COURSE NUMBER 12 TRADE AND INDUSTRIAL

ENROLLMENT SPACE BY INSTITUTION TYPE, PROGRAM, COST, AND ELIGIBILITY FOR STUDY AREA AROUND BUCKS COUNTY

SAT SCORE REQ.	COST REQ.	FOUR YEAR DEGREE		TWO YEAR DEGREE		TWO YEAR NON-DEGREE		EXTENSION DEGREE		EXTENSION NON-DEGREE		BUSINESS SCHOOL		TRADE SCHOOL		CONTINUING EDUCATION		PUBLIC SCHOOL	
		DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE
NONE	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	1359	612	0	0	0	0
NONE	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	15	22	0	0	0	0
NONE	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	336	225	0	0	0	0
NONE	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	26	298	0	0	0	0
NONE	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	606	74	0	0	0	0
NONE	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0
300+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	GT1500	0	0	0	0	69	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL ENROLLMENT		0	0	0	0	69	0	0	0	0	0	0	0	2362	1231	0	0	0	0

COURSE NUMBER -- 13 ADULT AND CONTINUING EDUC.

ENROLLMENT SPACE BY INSTITUTION TYPE, PROGRAM, COST, AND ELIGIBILITY
FOR STUDY AREA AROUND BUCKS COUNTY

SAT SCORE REQ.	COST REQ.	FOUR YEAR DEGREE		TWO YEAR DEGREE		TWO YEAR NON-DEGREE		EXTENSION DEGREE		EXTENSION NON-DEGREE		BUSINESS SCHOOL		TRADE SCHOOL		CONTINUING EDUCATION		PUBLIC SCHOOL	
		DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE
NONE	LT 200	0	0	0	0	0	746	0	0	0	0	0	0	0	0	0	361	0	0
NONE	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT1000	0	0	0	0	164	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL ENROLLMENT		0	0	0	0	164	746	0	0	0	0	0	0	0	0	0	361	0	0

COURSE NUMBER 14 OTHER

ENROLLMENT SPACE BY INSTITUTION TYPE, PROGRAM, COST, AND ELIGIBILITY FOR STUDY AREA AROUND BUCKS COUNTY

SAT SCORE REQ.	COST REQ.	FOUR YEAR DEGREE DAY	FOUR YEAR DEGREE EVE	TWO YEAR DEGREE DAY	TWO YEAR DEGREE EVE	TWO YEAR NON-DEGREE DAY	TWO YEAR NON-DEGREE EVE	EXTENSION DEGREE DAY	EXTENSION DEGREE EVE	EXTENSION NON-DEGREE DAY	EXTENSION NON-DEGREE EVE	BUSINESS SCHOOL DAY	BUSINESS SCHOOL EVE	TRADE SCHOOL DAY	TRADE SCHOOL EVE	CONTINUING EDUCATION DAY	CONTINUING EDUCATION EVE	PUBLIC SCHOOL DAY	PUBLIC SCHOOL EVE
NONE	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	184	0	0
NONE	LT 400	0	0	0	0	28	150	0	0	30	0	0	140	0	0	0	0	0	0
NONE	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0
NONE	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NONE	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	GT1500	0	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL ENROLLMENT		0	0	0	0	78	150	0	0	30	0	0	140	6.	0	0	184	0	0

ENROLLMENT SPACE BY INSTITUTION TYPE, COST, AND ELIGIBILITY
FOR STUDY AREA AROUND BUCKS COUNTY

SAT SCORE REQ.	COST REQ.	FOUR YEAR DEGREE		TWO YEAR DEGREE		TWO YEAR NON-DEGREE		EXTENSION DEGREE		EXTENSION NON-DEGREE		BUSINESS SCHOOL		TRADE SCHOOL		CONTINUING EDUCATION		PUBLIC SCHOOL	
		DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE	DAY	EVE
NONE	LT 200	17	25943	0	1343	0	3749	0	0	0	0	237	1022	2913	1815	0	3617	0	0
NONE	LT 400	0	8014	564	50	366	150	0	0	30	0	51	510	15	387	0	0	0	0
NONE	LT 600	0	0	455	0	168	0	0	0	0	0	38	213	665	521	0	0	0	0
NONE	LT 800	0	0	0	0	0	0	0	0	0	0	635	30	130	250	0	0	0	0
NONE	LT1000	0	0	327	0	551	0	0	0	0	0	360	519	344	298	0	0	0	0
NONE	LT1500	109	0	0	0	0	0	0	0	0	0	787	610	1221	74	0	0	0	0
NONE	GT1500	0	0	0	0	0	0	0	0	0	0	416	0	161	39	0	0	0	0
300+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT 600	0	0	0	0	0	0	0	0	225	0	0	0	0	0	0	0	0	0
300+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300+	GT1500	0	0	87	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 200	225	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT 600	0	0	0	0	0	0	501	0	0	0	0	0	0	0	0	0	0	0
350+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	LT1500	669	0	700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350+	GT1500	0	0	211	0	232	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 400	0	0	0	0	0	0	250	0	82	0	0	0	0	0	0	0	0	0
400+	LT 600	3876	0	0	0	450	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT 800	320	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT1000	0	0	0	0	166	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	LT1500	1652	0	50	0	51	0	0	0	0	0	0	0	0	0	0	0	0	0
400+	GT1500	533	0	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 400	1112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT 800	0	0	0	0	61	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	LT1500	1754	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450+	GT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	LT1500	1656	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500+	GT1500	3197	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT 800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	LT1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
550+	GT1500	2051	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL ENROLLMENT		17171	33957	2456	1393	2045	3899	751	0	337	0	2524	2904	5449	2384	0	3617	0	0

Summing over the entire table there existed occupied enrollment space for 30,733 day students and 49,154 evening students in both degree and non-degree programs. The largest portion of this enrollment space is provided by 4 year colleges and universities. 57,025 spaces are devoted to degree credit enrollment and 22,862 to non-degree enrollment. Liberal arts represented the single largest program orientation with an overall enrollment space of 23,549. Others of substantial size included Business (20,735), and Engineering related (12,780).

If the focus is narrowed down to freshman degree credit enrollment, over 67% (12,731) of the enrollment spaces had attached to them a cost exceeding $1,000 per year for full-time day school. Of these same spaces 8719 were occupied by an enrollment of which 95% scored above 450 on the Scholastic Aptitude Test.

Total evening degree enrollment, available in 23 institutions, stood at 36,647 in the fall of 1966. This space was occupied almost entirely by part-time enrollment and a large portion of this space is occupied only by students taking degree credit courses but not as degree candidates. 28,583 of the evening school, degree credit spaces had a cost which was less than $200 per year. The remaining 8064 spaces ranged a small amount above $200 per year. Most of the evening school, degree credit space is available without the condition of Scholastic Aptitude Test scores; however, other qualifying examinations are required by several schools as substitutes and in those schools where a degree can be awarded through the evening school, conditions of eligibility for degree candidacy may be similar to filing for degree candidacy in the day school.

In addition to cost and eligibility, the survey returns indicated several other important characteristics about degree credit enrollment. 2514 spaces in day schools were available to females only, and 2546 were available to male students only. The remaining 15,318 were coeducational.

The percentage of freshman, degree credit students accepted, of those who applied for full-time day school, ranged from 17% to 95% in the 4 year institutions and 30% to 100% in the 2 year institutions. Only 10 of the institutions did not require the prospective student to submit Scholastic Aptitude Test scores (most of these being schools of art, music or community colleges) and 20 required one or more Achievement Test scores. The music and art schools all required auditions and submittal of art works respectively as part of their admission evaluation.

The cost of degree credit enrollment is somewhat offset by the institutional financial aid awarded to freshmen, degree credit students in day school. In the fall of 1966 over 2,507 students received loans which averaged $600 and 3,560 received scholarships which averaged $700. In terms of enrollment space this meant a minimum of 17% of the spaces were subsidized by a total estimated amount of $4,700,000. Of these, two year institutions granted loans to 121 students averaging $500 and 196 scholarships averaging $480 for total subsidy of $134,700.

Finally, of all the degree credit spaces available in both day and evening school, 2031 belonged to community colleges outside of Bucks County. These spaces are conditioned by a higher cost unless permission is given to Bucks County students to attend and in several cases Bucks County residents are considered for admission only if the spaces are not already occupied by residents of the particular community college area. This same policy applies to other students seeking admission to the Bucks County Community College.

Non-degree enrollment space is more complex to report, reflecting the variety of institutions which provide the space. Freshmen students in two year non-degree programs of the community colleges, junior colleges, extension centers, and technical schools occupied 2382 enrollment spaces in day programs. The total evening enrollment was 3899. In addition the proprietary schools reporting accounted for a total occupied day space of 7973 and evening space of 6288. Continuing education centers reported a total enrollment space of 2,320 in non-degree programs. The largest enrollment space was occupied by students in engineering related programs.

The measure of cost for non-degree enrollment space varies depending on whether enrollment is for one course, a full-time curriculum in a two year institution, or for completing a program offered by a private trade or business school. 1,904 spaces in day, non-degree programs of the two year colleges (including here the extension centers) had a cost attached to them exceeding $400 per year. 4756 spaces in the proprietary trade and business school day programs had a cost attached to them exceeding $400 per year (costs here were particularly difficult to calculate due to the extensive difference in course offering and structure of the programs offered. What is reported here should be considered only as approximations for completing a full-time program or the first year thereof, whichever is less).

Costs for evening non-degree enrollment at two year institutions were almost all less than $200 per year. The cost of evening space in proprietary trade and business schools generally ran less than one-half the day costs. The cost of non-degree enrollment at continuing education centers was less than $200 per year.

All non-degree enrollment space in the day-time programs of two year colleges (including the extension centers) required high school graduation. Spaces in the more technical programs of the proprietary schools generally required high school graduation while the remainder were occupied without high school graduation as a requirement. Non-degree enrollment at the continuing education centers required high school graduation or equivalent in the unit study programs. Educational requirements varied for special interest courses.

C. Summary

This resource potential in and surrounding Bucks County is a vast one but also one which is undergoing a period of considerable change. New institutions are drawing more people into post high school education and at the same time taking away some of the potential enrollment from the older institutions. Through economic and convenience incentives some of the suburban enrollment is staying in the suburbs rather than coming into the center city. Competition is keen among institutions, yet their directions of policy are often based on incomplete knowledge of what their competitors expect to do. The tremendous diversity of the offerings opens the door to many opportunities but this very complexity also reduces the chance for the participant to examine much of its potential.

To residents of Bucks County only a certain portion of this potential is available and different portions are more available to residents in certain sections of the County than they are to residents in other areas of the County. What is northwest of the County is certainly available at less of a cost and inconvenience to residents of upper Bucks County than to those living in the area which borders on Philadelphia. The reverse is true for the resources in Philadelphia and Trenton.

Within this context, then, the final section of this report is addressed to how these resources can be expected to grow in the years ahead to 1980.

RESOURCE PROJECTIONS TO 1980

Methods of projecting enrollment are manifold in the printed literature on post high school education; however, most of these efforts are focused on the organized, well established colleges and universities. The results are often very different or at least difficult to compare. Built into many methods are factors peculiar to the research purpose, e.g., peculiar definitions of enrollment type, which make their usefulness more limited as secondary source material. These problems seem natural and legitimate until such time as major effort is made to approach post high school education as a related process and the mechanisms are set in motion to collect on a regular reporting basis the common data on each segment of post high school education.

There is an additional complicating factor about enrollment projections. They are often statements of what ought to be - e.g., statements such as "enrollment will be 120,000 in 2 year institutions in 1975", considered from the standpoint of enrollment trends. Then the job of providing this space is allocated between the alternative resources. There is very seldom a determination first of the space institutions anticipate they will provide for, which could then be matched with what ought to occur in terms of a desirable policy on enrollment growth and then the difference in the two identified. Once the second type of projection method is undertaken, the significance of state policy looms quite large since the institutions supported under its auspices provide such a large portion of the enrollment space and since state policy can have such a profound affect on the distribution of growth among the various segments of post high school education.

Despite these uncertainties, this study attempts to provide an estimate of enrollment space from the resource standpoint which can be used in the process of matching resource and demand. The assumptions made in using this approach are the following:

1. The response of each institution to the question concerning their definite plans for accommodating enrollment over the next 5 years is accepted at face value.
2. Where institutions failed to respond to the question, then their current enrollment is carried throughout the five year period and this lack of growth is weighted in with the growth of those responding, for projecting the 1975 and 1980 period.
3. No new resource is to be included in the projection unless its enrollment space is integrated into the institutions response for the five year period 1967-1971, or it has already been identified in the survey of institutions as prospective enrollment space - e.g., the Lehigh and Northampton County Community Colleges.

4. A straight line growth rate for each institutional type is assumed for the periods 1975 and 1980.

Certainly there may be room for dispute over these assumptions but this is the nature of all propositions that they may be altered until their correspondence with reality is sufficiently satisfactory. In this case of working with educational resources it does seem unwise, however, to include a new resource which has not been considered as a definite expenditure alternative. The following two tables indicate this change in enrollment space for inside Bucks County (Table XVII) and the study area outside Bucks County (Table XVIII) using such assumptions.

Table XVII

RESOURCES WITHIN BUCKS COUNTY - ENROLLMENT SPACE PROJECTIONS

				Projections				
Type of Institution:	Est. 1966*	1967*	1968*	1969*	1970*	1971*	1975**	1980**
Day								
Degree								
4 Year Institution	258	250	280	290	300	320	400	500
2 Year Colleges	404	612	645	682	725	755	875	1,025
Extension Centers	-	-	-	-	-	-	-	-
Non-Degree								
2 Year Colleges	114	236	255	270	280	300	380	480
Extension Centers	-	-	-	-	-	-	-	-
Proprietary Schools	-	-	-	-	-	-	-	-
Total Day Enrollment Space	776	1,098	1,180	1,242	1,305	1,375	1,655	2,005
Evening								
Degree								
4 Year Institution	208	250	275	300	325	350	450	575
2-Year Colleges	425	370	390	405	425	445	525	625
Continuing Education Centers	570	615	675	760	820	900	1,220	1,620
Non-Degree								
2 Year Colleges	131	190	195	205	210	215	235	260
Proprietary Schools	-	-	-	-	-	-	-	-
Continuing Education Centers	12	40	60	80	90	100	140	190
Public Schools	4,776	5,875	6,425	6,920	7,520	8,115	10,495	13,470
Total Evening Enrollment Space	6,112	7,340	8,020	8,670	9,390	10,125	13,065	16,740
TOTAL BUCKS COUNTY	6,888	8,348	9,200	9,912	10,695	11,500	14,720	18,745

*Based on reports of responding institutions
**Based on straight line projection of 1970 and 1971 figures

Table XVIII

RESOURCES SURROUNDING BUCKS COUNTY - ENROLLMENT SPACE PROJECTIONS TO 1980

Type of Institution:	Est. 1966*	1967*	1968*	Projections 1969*	1970*	1971*	1975**	1980**
Day								
Degree								
4 Year Institutions	17,171	17,177	17,940	18,628	19,124	19,186	19,434	19,774
2 Year Colleges	2,456	3,697	4,087	4,982	5,705	6,337	8,865	12,025
Extension Centers	751	830	940	980	1,030	1,080	1,280	1,530
Non-Degree								
2 Year Colleges	2,045	2,801	3,306	3,989	4,501	5,275	8,391	12,241
Extension Centers	337	320	320	330	395	445	645	895
Proprietary Schools	7,973	10,184	10,989	11,584	12,134	12,559	14,259	16,384
Total Day Enrollment Space	30,733	35,009	37,582	40,943	42,889	44,882	52,654	62,819
Evening								
Degree								
4 Year Institutions	33,957	36,322	37,636	38,183	39,086	40,233	44,821	50,556
2 Year Colleges	1,393	2,852	3,570	4,310	4,975	5,825	9,225	13,475
Continuing Education Centers	1,297	1,209	1,440	1,808	2,250	2,909	5,545	8,840
Non-Degree								
2 Year Colleges	3,899	5,043	5,738	6,863	7,848	9,113	14,253	20,678
Proprietary Schools	6,288	8,333	9,161	9,815	10,205	10,503	11,695	13,185
Continuing Education Centers	2,320	1,865	2,305	2,865	3,410	3,980	6,260	9,110
Total Evening Enrollment Space	49,154	55,624	59,850	63,844	67,774	72,563	91,799	115,844
TOTAL SURROUNDING BUCKS COUNTY	79,877	90,633	97,432	104,337	110,663	117,445	144,653	178,663

*Based on reports of responding institutions

**Based on straight line projection of 1970 and 1971 figures

CONCLUSIONS

Since the primary function of this report is to provide input for the matching of resources and educational interests, only a few general comments need to be made in closing this portion of the overall study. First of all, it seems from conversation with many of the 4 year colleges and universities that they expect a breather of some sort from the onslaught of students which has pushed them to their present peak. They do not expect to launch any building program of massive proportions in the next five years to accommodate a larger freshman student body, expecting to grow about 2% per year. There is no question that they will still continue to accept far fewer than apply; the question remains whether they will be able or willing to accommodate a larger share of those who will wish to attend.

The two year college growth is unquestionably a result of the community college. The private junior colleges expect to continue at basically the same size. The big question will be whether community college enrollments will meet the pace expected for them. The big change in two year colleges enrollment space in the Bucks County area is largely a result of the addition of two new community colleges with no enrollment experience yet established. Those community colleges already in existence and having enrollment experience do not anticipate any dramatic change in the next five years.

The proprietary schools have their own unique problems with regard to future enrollment. Several indicated they were clearly uncertain of their future until the drawing power of the community colleges could be felt and assessed. Some will not have this competition, since the curriculum they offer is not offered in the community colleges. And although figures have not been released yet, continuous adjustments are certainly occuring in the market place which cause the demise of some proprietary schools and the rise of others. Particularly clear at the present time is the growing number of schools offering programs in data processing and computer programming. These adjustments in technology will continue to be reflected in the establishment of proprietary trade and business schools.

FOOTNOTES

VIII. 1. Educational Coordinating Council, Education Beyond the High School--A Projection for Oregon. Oregon: Education Coordinating Council, October 7, 1966.

2. See Grant Vern, Man Education and Work. Washington, D.C.: American Council on Education, 1964; Harold Clark and Harold Sloan, Classrooms on Main Street, 1966; John W. C. Johnstone, Volunteers for Learning, Chicago, Illinois: Aldine Publishing Company, 1963; and Education for a Changing World of Work--A Report of the Panel, Washington, D. C.: U. S. Government Printing Office, 1964 for good general background sources.

3. The report on higher education of the Board of Education was submitted by the Governor to the State Legislature in the spring of 1967. It was not acted upon as of August 1, 1967. Several changes of significance in the State university system of commonwealth campuses are included in the report. It is recognized that no action is a policy in itself but in terms of the reports submitted in the field of post high school education it is extremely questionable whether such a policy will remain the policy. The current debate on providing funds for the campus in Delaware County provides a good example of the state of affairs.

4. Kenneth Simon and W. Vance Grant, Digest of Educational Statistics--1965 Edition, Washington, D. C.: Govern-Printing Office, 1965, p. 53. Still, however, 28% of the persons age 18 did not graduate from high school in 1965.

5. Kenneth A. Simon and Marie B. Fullam, Projections of Educational Statistics to 1975-76. Washington, D.C.: Government Printing Office, 1966, p.14.

6. Ibid., p. 14. Approximations are used here due to the 1966 enrollment definition changes by the Office of Education

7. "Opening Fall Enrollment in Higher Education", Washington, D. C.: Government Printing Office, p. 14.

8. Kenneth A. Simon and Marie Fullam, op. cit., p. 14.

9. Ibid., p. 15.

10. Ibid., p. 15. Approximations are used here due to change in enrollment definitions by the Office of Education.

11. Ibid., p. 15.

12. Kenneth Simon and Marie Fullam, Projections of Educational Statistics to 1974-75, Washington, D.C.: Government Printing Office, pp. 12-15.

13. "Vocational and Technical Education--A Review of Activities in Federally Aided Programs", Washington, D.C.: Government Printing Office, p. 5.

14. "Manpower Report of the President and A Report on Manpower Requirements, Resources, Utilization and Training", Washington, D.C.: Government Printing Office, 1967, p. 280.

15. *Ibid.*, pp.277-278.

16. *Ibid.*, p. 279.

17. See John W. C. Johnstone, *op. cit.*, p. 34 and Harold Clark and Harold Sloan, *op. cit.*, p. 4.

18. See "Guidelines for the Establishment of Public Community Colleges in Pennsylvania", Harrisburg: Department of Public Instruction, 1965.

19. Reported by Bureau of Community Colleges, April, 1967.

20. See Public Law 1428 (1947) as amended by Public Law 990 (1949).

21. See Act of the General Assembly, No. 322.

22. "1967-1968 Budget of the Commonwealth of Pennsylvania for Fiscal Year July 1, 1967 to June 30, 1968", Commonwealth of Pennsylvania, pp.138, 143, 155, 156.

23. Reported by the State General Authority, Harrisburg, Pennsylvania.

24. "Our Colleges and Universities Today", Harrisburg, Pennsylvania: Pennsylvania Department of Public Instruction, February, 1967, p. 3.

25. "An Analysis and Summarization of 1965 Summer Session and Fall Enrollment Data Reported", Harrisburg, Pennsylvania: Pennsylvania Department of Public Instruction, June, 1966, p. 2.

26. "Fall College Enrollments Trends--1963, 1964, and 1965", Harrisburg, Pennsylvania: Pennsylvania Department of Public Instruction, December, 1965, pp. 4-5.

27. *Ibid.*, p. 6.

28. "Fall College Enrollment Trends--1964, 1965, and 1966", Harrisburg, Pennsylvania: Pennsylvania Department of Public Instruction, February, 1967, p. 11.

29. "Opening Fall Enrollment in Higher Education, 1966", Washington, D.C.: Government Printing Office, 1966, pp. 86-92.

30. "Fall College Enrollment Trends--1964, 1965, and 1966", supra, pp. 3-4.

31. "Fall College Enrollment Trends--1963, 1964, and 1965", supra, p. 5.

32. Ibid., p. 6-7.

33. "State Data and Rankings in Health, Education and Welfare--1965." Washington, D.C.: Government Printing Office, 1966, pp. S-44 and S-45.

34. Reported by the Bureau of Apprenticeship Training, Pennsylvania Department of Labor and Industry, July, 1967.

35. Reported by the Pennsylvania Manpower Development and Training Office, January 30, 1967 and U. S. Department of Labor, Manpower Administration, Bureau of Work Programs, May 9, 1967.

36. Estimates provided by the State Board of Private Trade Schools and State Board of Private Business Schools, June, 1967.

37. Estimates provided from the Bureau of Research Survey (Department of Public Instruction) to school districts concerning the community use of school buildings, March 1967.

38. Reported by the Bucks County Finance Office, June, 1967.

39. The Bucks County Center offers entirely degree credit courses whereas the Continuing Education Centers provide non-degree enrollment as well.

40. The jurisdiction (charter) of any particular local may range from one plant to several states.

APPENDIX A

RESEARCH QUESTIONS ABOUT EDUCATIONAL RESOURCES

By type of institution, what programs exist within Bucks County, within commuting distance of Bucks County, and outside Bucks County to meet the post high school educational needs of Bucks County residents.

A. What is the capacity of degree granting institutions? Day school? Evening school?

B. What is the capacity of non-degree granting institutions? Day school? Evening school?

C. What are the admission requirements of degree granting institutions available to Bucks County residents? Day school? Evening school?

D. What are the admission requirements of non-degree granting institutions available to Bucks County residents? Day school? Evening school?

E. What are the tuition, living, commuting and other costs to attend degree granting institutions?

F. What are the tuition, living, commuting and other costs to attend non-degree granting institutions?

G. To what extent are they now serving Bucks County residents? Day school? Evening school?

H. To what extent are students who are now attending post high school institutions receiving financial assistance and what is the average amount?

I. What are the enrollment, admission requirements, and cost of enrollment in other post high school educational programs in Bucks County?

    1. Manpower Development and Training Act Program

    2. Adult and continuing education programs

    3. Apprenticeship training programs

J. What trends are significant in the total enrollment of universities and colleges nationally?

K. What trends are significant in costs of attending universities and colleges nationally?

APPENDIX B

Institutions in the Study

(Data in the study are based on returns from the following schools)

FOUR-YEAR COLLEGES AND UNIVERSITIES

Beaver College
Bryn Mawr College
Cedar Crest College
Chestnut Hill College
Combs College of Music
Curtis Institute of Music
Delaware Valley College of Science and Agriculture
Drexel Institute of Technology
Eastern Baptist College
Gratz College
Gwynedd-Mercy College
Haverford College
Holy Family College
Immaculata College
Kutztown State College
Lafayette College
La Salle College
Lehigh University
Lincoln University
Moore Institute College of Art
Moravian College
Muhlenberg College
Philadelphia College of Art
Philadelphia College of Bible
Philadelphia College of Pharmacy and Science
Philadelphia College of Textiles and Sciences
Philadelphia Musical Academy
Rider College
Rosemont College
Rutgers University, University College
St. Joseph's College
Swarthmore College
Temple University
Trenton State Teacher's College, Field Services Division
University of Pennsylvania
Ursinus College
Villanova University

TWO-YEAR COLLEGES

Bucks County Community College
Ellen Cushing Junior College
Gwynedd-Mercy Junior College
Harcum Junior College
Lehigh County Area Community College
Manor Junior College
Mercer County Community College
Montgomery County Community College
Northampton County Area Community College
Philadelphia Community College
Pierce Junior College
School of Dental Hygiene - Temple University
School of Nursing - Temple University
Spring Garden Institute
Technical Institute - Temple University

EXTENSION CENTERS

Allentown Campus - Pennsylvania State University
Ambler Campus - Temple University
Ogontz Campus - Pennsylvania State University

PRIVATE TRADE SCHOOLS

American Sewing Trade School
Automotive Training Center (Spring Garden Institute)
Bowman Technical School
Delaware Valley Institute
Electronic Technical Institute
Franklin School of Science and Arts
Granoff School of Music
Graphic Arts Education Center
Hussian School of Art
Kalix Trade School, Inc.
Keystone Sewing Machine Repair Institute
Lincoln Technical Institute
McCarrie School of Mechanical Denistry
Monotype School of Lanston Industries, Inc.
National Institute for Food Services, Inc.
National School of Dental Technology
New School of Music, Inc.
Opportunities Industrialization Center
Philadelphia Wireless Technical Institute
Philco Technical Institute
Quaker City School of Aeronautics
School of the Frankford Welding Company
Studio School of Art and Design
Tracy-Warner School of Fashion Design
Trenton Technical Institute

PRIVATE BUSINESS AND COMMERCIAL SCHOOLS

Academy of Advanced Traffic
Adelphia Business School
Allentown Business School
Comptometer School - Victor
Computer Educational Institute
Electronic Computer Programming Institute (Trenton)
The Gross C.P.A. Course
Harris School of Business
Keystone Secretarial and Business Administration School
Lansdale School of Business
The Levitan School
Palmer School, Inc.
Pennsylvania Business School
Philadelphia School of Office Training
Pioneer Business and Industrial Institute
Charles Morris Price School of Advertising and Journalism
RCA Technical Institute
School of Practical Bookkeeping
Stenotype Institute of Philadelphia, Inc.
Taylor School of Business
Trenton-Nassau School of Data Processing
Trenton Technical Institute

CONTINUING EDUCATION CENTERS

- Pennsylvania State University
  - Abington
  - Allentown
  - Center Valley
  - Collingdale
  - Doylestown
  - Folcroft
  - Johnsville
  - King of Prussia
  - Levittown
  - Norristown
  - Philadelphia
  - Salisbury
  - Souderton
  - Springfield
  - Wilson
  - Yeadon

- Temple University
  - Bucks County Center

PUBLIC SCHOOLS

Vocational Technical
- Lower Bucks County Area Vocational-Technical School
- Upper Bucks County Area Vocational-Technical School

Adult and Continuing Education
- Bristol Township School District
- Centennial Schools
- Central Bucks Adult Evening School
- Neshaminy Adult Education, Inc.
- Pennridge School District
- Pennsbury Adult School
- Quakertown Community School District

APPENDIX C*

HOSPITAL NURSING SCHOOLS

Within the nursing profession there are three rather distinct groups of personnel: (1) registered nurses (RN's), (2) licensed practical nurses (LPN's) sometimes called licensed vocational nurses, and (3) aides, attendants and orderlies.

The group which concerns this study most from the educational standpoint is the registered nurse. To become a R.N. an applicant must pass the licensing examination of the Commonwealth of Pennsylvania. In Pennsylvania an applicant can become eligible to take the exam through three different educational processes which require 4, 3, or 2 years of schooling. They are generally referred to as "Baccalaureate" course (4 year college), "diploma" course (3 year hospital school), or "associate degree" course (2 year junior college).

Licensed practical nurses generally require practical nursing training, which lasts one year and is often obtained in the public vocational-technical school or through adult education programs, and applicants must pass a state examination. Nurses aides are not licensed and do not have a minimum educational requirement.

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*This special Appendix has been added since hospital nursing schools were not covered in the original survey of post high school education resources. Four year college nursing programs were covered in the main body of this report.

In the Bucks County study area there are 29 approved professional schools of nursing whose educational programs allow their graduates to take the licensing examination of the Commonwealth to become a registered nurse. Five of the 29 are under provisional approval either pending an initial survey or on the basis of an initial survey by the Commonwealth.

Twenty four of the 29 approved programs fall in the "diploma" category offered through hospitals throughout the study area. Four of the 24 are located in the Allentown-Bethlehem-Easton area, 19 are located in or closely adjacent to Philadelphis, and 1 is located in Bucks County.

Most tuition and fee charges for attending hospital nursing school programs are reported for the full three years. They range from $800 to $1600 and tend to congregate around the $1000 and $1500 level: annually they would range from $275 to $533. This does not include the cost of uniforms (reported by one institution at a fixed cost of $95).

Examinations are required for entrance into all the hospital schools of nursing. Of the twelve hospital schools responding, three different examinations were employed. In terms of their frequency of use these exams were: (1) National League For Nursing Pre-Nursing Test, (2) Pre-Nursing Test of The Psychological Corporation of New York, and (3) C. H. Smeltzer Psychological Test. These exams are primarily intended to measure capability to undertake a nursing program; they are not aptitude tests, though they may include sections on attitudes.

The 12 responding schools indicated 95% of their students scored above the 45th percentile.

Although nursing has been predominantly a profession of women it is not restricted to them. However, a review of responses by the hospital nursing schools indicates there is an extremely restricted availability of space for men who might wish to enter upon a nursing career. Ten of the 12 responded that their school was for women only and two indicated their schools were coeducational.

Total occupied enrollment space for first time students in 1966 for the 12 hospital schools reporting was 637. These same schools reported a maximum capacity to handle first time students in the fall of 1967 of 661. Over 2,250 first time students applied which indicates that over three times as many applied as could have been accepted (counting multiple applications). Even if we assume two applications per student there still remains a 2 to 1 ratio between students applying and capacity to accommodate.

For the five year period 1967-1971 the 12 hospital schools reported a very limited growth in capacity to accommodate the flood of applications. Only 2 of the 12 reported any increase in capacity and this totaled only 20 spaces. It is rather difficult to explain this lack of growth in view of the talked about nursing shortage. Perhaps it indicates a necessity for the hospital as a whole unit to expand before the nursing schools as a sub-unit can accommodate more applicants.

APPENDIX D

CHARACTERISTICS OF HIGH SCHOOL SENIORS
BUCKS COUNTY, PENNSYLVANIA
Working Paper Number 4

Prepared for
Bucks County Board of School Directo

By
Government Studies Center
Fels Institute of Local and
State Government
University of Pennsylvania

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Government Studies Center
Fels Institute - U. of Pa.

INTRODUCTION

This report is the fourth in a series of working papers prepared for the Bucks County Board of School Directors to assist in the analysis of post high school educational needs in Bucks County, Pennsylvania. The first working paper estimated future population growth by school district; the second discussed employment-education relationships; the third estimated educational resources in and around Bucks County. Other papers will be issued discussing adult residents' educational desires and plans, and total probable unmet needs for post high school education. The data and results will be used to help generate and evaluate several alternative methods of meeting the unmet needs estimated by the research studies summarized in the working papers.

The Government Studies Center of the Fels Institute of Local and State Government at the University of Pennsylvania is serving as consultant to the Bucks County Board of School Directors, and has primary responsibility for the overall project. Government Studies Center personnel participating in this portion of the project are John K. Parker, project supervisor; Daniel J. Glanz, system analyst; and Boyd Z. Palmer, research director and author of this report.

SCOPE

The design phase of the overall project posed research questions which were then used to guide data collection and analysis. Questions relating to high school seniors in Bucks County (see Appendix A) led to two data collection instruments - a questionnaire administered to all high school seniors in Bucks County public and private high schools, and a School Record Data Form for obtaining IQ and class rank data on each senior.

This report summarizes the answers obtained from the data collection instruments, relating them specifically to the research questions. It should be noted that the tabulations given in this report are only a small portion of the many possible summaries that could have been made. All answers were transferred to magnetic computer tape; this tape constitutes a valuable data source for further research which could not be undertaken within the resources and scope of this project.

SUMMARY

Bucks County high school seniors are apparently above average in capability to undertake post high school education, compared with seniors studied in St. Louis (1959) and Pennsylvania (1958). They are about at the national average in plans to go directly on to some form of higher education, indicating that many seniors capable of going on are not doing so. Over 400 seniors with IQ of 113 or higher have chosen not to go directly on; presumably most of these seniors would be well able to handle college-level programs.

Plans of the seniors seem consistent with their capabilities; the highly capable seniors want professional jobs and heavily favor Liberal Arts programs at four year colleges. Seniors of about average capability for Post High School Education (PHSE) want professional, semi-professional, and clerical jobs, and prefer Engineering, Teacher Education, and Liberal Arts programs at both two and four year colleges. Seniors with below average capability who want more education favor Business and Trade programs primarily at vocational or business trade schools, and are expecting clerical and skilled jobs. Seniors not planning more education are primarily below average in capability, and indicate their major reasons for not going on are desire to get a job, need for a job, and low grades in high school.

We know very little about the financial situation of seniors not planning some type of post high school education. Those seniors who plan to go on are depending primarily on parental gifts and part time jobs for their funds; over 20% of those already accepted by a college or other institution have not yet found all the funds required.

METHODOLOGY

A. Senior Survey

The design and construction of the survey instrument was a joint effort of the Fels study staff and the Bucks County study staff, with consulting help from Dr. Hugh Davidson, Professor of Education and Research, Penn State University. A draft copy was reviewed by the Advisory Council of the Board of School Directors, and several of their suggestions were incorporated. The final version was designed to be self-coding for ease of keypunching answers into tabulating cards.

During the period of April 17-26 all 17 public and private high schools in Bucks County cooperated by using a particular class period (usually home-room period) to have all seniors present on that day fill out a copy of the questionnaire. In one school, the administration requested that the seniors not fill in names and addresses; this school then entered its own student identification number on each questionnaire for control purposes. At all other schools, the students wrote in name and address, and the Bucks County study staff assigned sequential identification numbers.

Questionnaire answers were keypunched into tabulating cards, then transferred to magnetic tape for analysis purposes.

B. School Record Data

An examination of records kept by the schools for each student revealed that the only consistently recorded objective data related to educational capability or achievement were IQ scores and class rank. Some achievement test scores were also recorded, but only a small percentage of students took such tests and those students were a very select group of all students. Therefore a data recording form was designed to extract from the school record files only the IQ and class rank of each senior (see Appendix C for a copy of the form).

Data collection was conducted by school guidance counselors, who had unrestricted access to the records. Student identification numbers assigned from the survey questionnaires, and names, were printed on special gummed labels which were attached to the data collection forms. This procedure insured that IQ scores and class rank would be added to the proper record of questionnaire answers, via the identification number. The school that requested that student names be omitted was able to supply the IQ - class rank data through its identification codes.

C. Data Analysis

1. New Classes

Thirteen new classes were created from the answers on the survey questionnaire and the IQ - class rank data; eleven were derived from the survey answers, two from the cumulative record data. These new classes were cross-tabulated with each other and with the other data, to generate the tables shown in this report, and many others. A brief description of each new class follows:

(1) Area of Location - School districts where students reside were combined into county regions - Upper Bucks (districts 1, 2, and 3), Middle Bucks (districts 4, 5, 6, and 7), and Lower Bucks (districts 8 through 13).

(2) Strength of Expectation for Post High School Education (PHSE) - Answers to survey questions 21 and 25 were used to put each student into one of 5 categories:

1. Accepted by a PHSE institution and expect to go
2. Applied but not yet accepted
3. Not applied but expect to attend this year
4. Want PHSE later, no plans for this year
5. No interest in PHSE now or later

(3) Strength of Expectation-Model - condensed version of above class, combining categories 1 and 2 into one category, "Applied for PHSE."

(4) Desired Area Next Year - The "Don't Know" portion of question #7 was arbitrarily allocated to "within commuting distance" or "outside commuting area" according to answers to question #6.

(5) Money Available for PHSE - answers on questions 30 and 31 (tuition and living costs) were added, then multiplied by % of expected cost accounted for (obtained from question #38), to get estimate of amount now available.

Categories are :

1. Less than $200
2. $200-399
3. $400-599
4. $600-799
5. $800-999
6. $1000-1499
7. $1500-1999
8. $2000-2499
9. $2500+

(6) Money Available - Model - A three-category version of above, combining categories 1 and 2; 3, 4 and 5; 6, 7, 8, and 9.

(7) Capability for PHSE - derived from IQ scores; categories correspond to Stanine classes based on distribution of Bucks County seniors' IQ scores. Categories are (see Appendix D for derivation):

1. IQ Less than 85
2. IQ 85-91
3. IQ 92-98
4. IQ 99-105
5. IQ 106-112
6. IQ 113-119
7. IQ 120-126
8. IQ 127-133
9. IQ 134+

(8) Capability - Model - A four-category verison of above, combining categories 1, 2, and 3; 4, 5, and 6; 7 alone; 8 and 9.

(9) Time Desired for PHSE - Based on answers to questions #19 and #6. Seniors grouped into three categories: full time, part time, and don't know - not interested.

(10) Time Desired for PHSE - Model - Transforms previous class into a two-category class by assuming full time means a Day program; part time means an Evening program; "don't know - not interested" were all included in the "Evening" program desired.

(11) Type of Institution Desired - Each senior was recorded as interested in a particular type of institution, depending on his/her answer to question #22. Institution types are:

1. 4 yr. degree
2. 2 yr. degree
3. 2 yr. non-degree
4. Voc/tech. Bus/Commer.
5. Continuing Education
6. None indicated

(12) Type of Institution Desired - Model - A three-category version of the above class, combining categories 3, 4, 5, and 6 into an "Other" category.

(13) Subject Desired - Each senior was recorded as interested in a particular subject (or program of study), depending again on his/her answer to question #22. The subject categories used are:

1. Business
2. Engineering
3. Teacher Education
4. Nursing
5. Medical Tech.
6. Art
7. Music
8. Home Economics
9. Liberal Arts
10. Agriculture
11. Secretarial
12. Trade and Industrial
13. Adult & Contin. Educ.
14. All Other
15. None Indicated

Note that two separate classes were formed from question #22 - one for type of institution, one for subject; this was done to permit allocation of students to different institution types in the computer model part of the study, which is not discussed in this report. Other classes were also added specifically for use in the "model" portion of the study.

2. Use of the Classes and Answers

The research questions to be answered (Appendix A) are structured around aspirations, plans, finances, and capabilities, and the relationships among these characteristics of Bucks County high school seniors. Aspirations will be examined via a follow-up survey; the particular survey questions used to estimate the other characteristics are:

Characteristic	Survey Question
Occupational Plans	#3
1967 Plans	#6
Educational Plans	#5 and #19
Strength of Expectation (variation of "plans" characteristics)	New class, based on #21 and #25
Finances	New "Money Avail." class, based on #30, #31, #38
Capabilities	New "Stanine" class, based on IQ scores
Type of Institution Desired and Subject Desired	New classes, based on #22

Relationships among these characteristics (along with standard characteristics of geographic location and sex) were estimated through interpretation of cross-tabulations. Simple counts of answers to all questions are shown in the appendix on the copies of the instruments.

D. Completeness of Coverage

A total of 4512 questionnaires were filled out, representing about 88% of the 5120 seniors enrolled as of the time of the survey. The 12% absence rate was regarded as normal for that time of year, and school officials believed the absentees were not a particular type of student in an way - hence no bias is expected from leaving out this group of seniors.

School record data were collected for all survey respondents. However, technical difficulties (primarily random keypunch errors) prevented complete success in matching record data with survey answers. In addition, some data were excluded due to questionable veracity (e.g., student name: Clark Kent; address Daily Planet), leaving a final total of 4415 useable data records. Table I shows final counts of the useable data records, by school. To estimate total Bucks County senior responses, correction factors for each region would be:

Upper Bucks	1.1111	(= 100.0 / 90.0)
Middle Bucks	1.1737	(= 100.0 / 85.2)
Lower Bucks	1.1655	(= 100.0 / 85.8)

The figures in this report have not been corrected for survey incompleteness.

TABLE I

Tabulation of Useable Senior Responses, by School and Bucks County Region

School Name	Code	District	Senior Enrollment*	Useable Responses	Percent Responding
Palisades Jr.-Sr. High	1	Palisades	132	120	90.9
Quakertown High	2	Quakertown	275	254	92.4
Pennridge High	3	Pennridge	313	274	87.5
Central Bucks High	4	Central Bucks	463	398	86.0
New Hope-Solebury High	5	New Hope-Solebury	57	51	89.5
Council Rock High	6	Council Rock	302	250	82.8
William Tennent High	7	Centennial	367	315	85.8
Neshaminy Sr. High	8	Neshaminy	686	626	91.3
William Penn High	9	Pennsbury	704	560	79.5
Morrisville High	10	Morrisville	90	75	83.3
Woodrow Wilson High	11	Bristol Township	729	574	78.7
Bristol Boro Sr. High	12	Bristol Boro	142	127	89.4
Bensalem Twp. High	13	Bensalem	284	256	90.1
Bishop Conwell	14	Pennsbury	296	295	99.7
Bishop Egan	15	Pennsbury	251	218	86.9
George School	16	Neshaminy	15	11	73.3
Solebury Private	17	New Hope-Solebury	14	11	78.6

Regions	Schools			
Upper Bucks	1-3	720	648	90.0
Middle Bucks	4-7, 17	1203	1025	85.2
Lower Bucks	8-16	3197	2742	85.8
TOTAL BUCKS COUNTY		5120	4415	86.2

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* As of day of survey at each school. For private schools, represents seniors who were Bucks County residents.

RESULTS

A. Plans and Expectations

More than 75% of all seniors expect to get some kind of post high school education at some time during their lives. Over 55% are looking toward college training, and about 42% expect to get at least a bachelors degree from a four-year college or university. Boys generally have higher educational hopes than girls, and seniors in Middle Bucks seem to expect more education than seniors in the rest of Bucks County, as shown in Table II.

Seniors preferences for types of institutions - based on answers to question #22 - agreed fairly closely with the above; over 42% preferred a four year college or university, and 60% preferred some type of two or four year college. Boys were more interested in degree institutions, but 11% of the girls indicated interest in two year non-degree institutions vs. less than 5% of the boys. Over 19% of seniors in Middle Bucks were interested in two year institutions (degree and non-degree) as against 11% in Upper Bucks and 18% in Lower Bucks.

TABLE II

Greatest Amount of Education Expected

(Based on answers to survey question 5)

	Sex		Region			
	Boys	Girls	Lower	Middle	Upper	Total Bucks
Expect some PHSE	81.8%	71.2%	75.5%	83.2%	68.0%	76.2%
Expect Some College	60.9%	49.4%	54.1%	63.3%	47.4%	55.3%
Expect at least 4 Year Degree	49.1%	34.1%	40.5%	48.3%	36.3%	41.7%

Liberal Arts ranked highest in program preference (19% checked this choice), followed by Teacher Education (12.5%), Engineering (10.9%), and Business (10.3%). Most of the seniors choosing Liberal Arts, Engineering and Business were boys, while girls dominated choices for Teacher Education. Altogether, 199 boys and 357 girls chose Teacher Education.

Almost 35% of the seniors are looking toward occupations in the professional category; the ranking of the other popular occupation groups is clerical (20%), other (11.3%), and semi-professional (10.1%). Surprisingly, only 3% of the girls chose the "Housewife" category; many of the 37.7% of girls who chose "clerical" may have seen that type of job as a part of, or a prelude to, the Housewife occupation. Undoubtedly, most of the 17% of the boys who chose "Other" had military service in mind; 389 boys checked answer 12 on question 3.

Question 19, which refers specifically to immediate plans for education after graduation from high school, produced answers that were virtually identical with answers to question 5, dealing with educational expectations. This result undoubtedly occurred because of the word "expect" in each of the answers to question 5. There was one major difference between answers on question 5 and 19: less than 10% of the seniors said they expected to finish a community college or two year college program (answer 5 on question 5), yet almost 15% plan to enter a community college or two year college program. Either a lot of seniors plan to enter two year colleges but don't expect to finish, or, more probably, they expect to transfer to a four year college and complete that program.

The "Strength of Expectation" class, based on answers to question 21 and 25, permits examining institutional and program interest of seniors already accepted by PHSE institutions, and those seniors who expect to go later; it also allows tabulation of those seniors with no plans for PHSE by reason (question 8 to 18). *Table III shows sex and regional breakdowns* of the "strength" class.

TABLE III

Strength of Expectation for PHSE by Sex and Geographic Region

	Sex				Region							
	Male		Female		Lower		Middle		Upper		Total	
Expectation for PHSE	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1. Applied and accepted	983	43.7	963	44.6	1172	42.8	525	51.3	249	38.5	1946	44.0
2. Applied, not yet accepted	200	8.8	129	5.9	205	7.5	79	7.7	45	6.9	329	7.5
3. Not yet applied, expect to go	94	4.2	82	3.8	126	4.5	27	2.6	23	3.5	176	4.0
Total of Above: That Expect PHSE next year	1277	56.7	1174	54.3	1503	54.8	631	61.6	317	48.9	2451	55.5
4. Want PHSE later	522	23.1	380	17.6	551	20.1	218	21.3	133	20.5	902	20.5
5. No plans for PHSE	453	20.2	609	28.1	688	25.1	176	17.1	198	30.6	1062	24.0
Total	2252	100.0	2163	100.0	2742	100.0	1025	100.0	648	100.0	4415	100.0

At the time the survey was taken, 44% of the seniors indicated they had already been accepted by a post high school educational institution; over 7% had applied but were not yet accepted; 4% expected to attend an institution but had not yet applied; 20% planned to go after a year or so; and 24% had no plans for PHSE. If we assume that almost all of the first three groups will actually enter some type of higher education institution, then we can estimate that about 55% of Bucks County high school seniors will go on to PHSE in the 1967-1968 academic year. This compares with the national average of 53.2%, which is based on retention rate data of the U. S. Office of Education, based in turn on first-time enrollment in institutions of higher education.[1] It is impossible to tell whether the institutions the seniors were thinking of correspond with the "institutions of higher education" as defined by the Office of Education; nevertheless, it appears that the post high school enrollment rate of Bucks County high school seniors is about the same as the national average. Table III shows that there is little difference between sexes, but there is considerable difference among regions, with the Middle Bucks enrollment rate being considerably higher, and the Upper Bucks rate being somewhat lower, than the national average.

Table IV shows that 72% of those already accepted plan to attend a four year college or university, and over 20% will attend a two year college of some type. Half of those not yet accepted plan to attend a four year college, and over 35% expect to attend a two year college. Those who plan to get PHSE later are apparently most interested in vocational or business private trade schools. Also, those with uncertain plans would rather be within commuting distance (a good many of the "don't know" answers are probably boys expecting military service), would go into part time PHSE rather than full time, and would probably take subjects available on a part time basis such as trade and industrial, business, and engineering.

TABLE IV

Strength of Expectation for Post High School Education: Time and Area Desired for PHSE, Type of Institution, and Subject Desired

		STRENGTH OF EXPECTATION FOR PHSE											
		Applied & Accepted		Applied, not Accepted		Not yet Applied		Want PHSE Later		No plans for PHSE		Total	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
		(1946)		(329)		(176)		(902)		(1062)		(4415)	
Area Desired:	Within Com. Dist.	881	45.2	192	58.3	134	76.2	506	56.1	628	59.2	2341	53.0
	Beyond Com. Dist.	983	50.5	70	21.3	18	10.2	71	7.9	75	7.0	1217	27.6
	Don't Know	82	4.3	67	20.4	24	13.6	325	36.0	359	33.8	857	19.4
Time Desired For PHSE:	Full Time	1866	95.8	274	83.3	89	50.6	210	23.3	11	1.0	2450	55.5
	Part Time	80	4.2	50	15.2	85	48.3	619	68.6	54	5.1	888	20.1
	Don't Know	0	.0	5	1.5	2	1.1	73	8.1	997	93.9	1077	24.4
Type of Institution:	4 Year Degree	1402	72.0	164	49.8	48	27.3	232	25.8	43	4.1	1889	42.8
	2 Year Degree	240	12.3	59	17.9	22	12.6	86	9.5	7	.6	414	9.4
	2 Year Non-deg.	153	7.8	57	17.4	16	9.1	125	13.9	7	.6	358	8.1
	V/T, B/C	135	6.9	41	12.5	77	43.7	320	35.5	52	4.9	625	14.1
	Continuing Ed.	14	.8	5	1.5	12	6.8	77	8.5	15	1.4	123	2.8
	None Indicated	2	.2	3	.9	1	.5	62	6.8	938	88.4	1006	22.8
Subject Desired:	Business	217	11.2	52	15.8	22	12.6	149	16.6	17	1.7	457	10.4
	Engineering	229	11.7	42	12.8	36	20.5	152	16.9	24	2.3	483	10.9
	Teacher Education	433	22.3	63	19.1	10	5.6	44	4.9	6	.6	556	12.6
	Nursing	148	7.6	29	8.9	17	9.7	53	5.9	3	.2	250	5.7
	Medical Tech.	30	1.6	6	1.8	1	.5	11	1.2	0	.0	48	1.1
	Art	57	2.9	20	6.1	5	2.8	24	2.6	4	.3	110	2.5
	Music	54	1.2	4	1.2	2	1.2	7	.7	3	.2	40	.9
	Home Economics	26	1.3	3	.9	1	.5	5	.5	1	.0	36	.8
	Liberal Arts	630	32.4	66	20.0	29	16.4	101	11.2	15	1.5	841	19.0
	Agriculture	14	.7	1	.3	2	1.2	15	1.6	6	.6	38	.9
	Secretarial	74	3.9	16	4.9	9	5.1	48	5.4	5	.4	152	3.4
	Trade and Ind.	15	.7	9	2.7	24	13.7	127	14.1	33	3.2	208	4.7
	Adult & Continuing Ed.	1	.0	0	.0	0	.0	8	.8	5	.4	14	.3
	Other	48	2.5	17	5.2	17	9.7	99	11.0	8	.8	189	4.3
	None Indicated	0	.0	1	.3	1	.5	59	6.6	932	87.8	993	22.5

For those who have no plans for PHSE or else want to wait until later ("Strength" categories 4 and 5), the overwhelmingly dominant reason given was their desire to get a job and start earning a living as soon as possible (question 9), as shown in Table V. The next three reasons, in apparent order of importance, were that they needed a job, that their grades were too low, and that their parents couldn't afford to send them to further schooling. Undoubtedly there is a relationship between amount of money available and the desire to get a job, but the strong importance the seniors placed on desire for a job, and the comparative importance they placed on need for a job suggests that lack of money for PHSE was an important secondary reason, not the primary reason. For example, over 56% of the 1062 seniors with no plans for PHSE rated "desire for a job" as extremely important or very important, and over 28% rated "need a job" in those strong terms; only 18% rated "parents can't afford it" as being more than moderately important.

TABLE V

Reasons For Not Planning Post High School Education

Survey Ques. No.	Reasons	Degree of Importance*	Plan for PHSE later (902)		No Plans for PHSE (1062)		Total Strength 4+5 (1964)	
			No.	%	No.	%	No.	%
8.	Would not help	None, minor, no ans.	701	77.7	761	71.7	1462	74.4
		Imp., very, extremely	201	22.3	301	28.3	502	25.6
9.	Want job	None, minor, no ans.	497	55.1	218	20.5	715	36.4
		Imp., very, extremely	405	44.9	844	79.5	1249	63.6
10.	Need job	None, minor, no ans.	613	68.0	508	47.8	1121	57.1
		Imp., very, extremely	289	32.0	554	52.2	843	42.9
11.	Can't afford	None, minor, no ans.	653	72.4	720	67.8	1373	69.9
		Imp., very, extremely	249	27.6	342	32.2	591	30.1
12.	Rather marry	None, minor, no ans.	797	88.4	738	69.5	1535	78.2
		Imp., very, extremely	105	11.6	324	30.5	429	21.8
13.	Grades too low	None, minor, no ans.	641	71.1	669	63.0	1310	66.7
		Imp., very, extremely	261	28.9	393	37.0	654	33.3
14.	Don't like to study	None, minor, no ans.	702	77.8	706	66.5	1408	71.7
		Imp., very, extremely	200	22.2	356	33.5	556	28.3
15.	No ability	None, minor, no ans.	750	83.1	772	72.7	1522	77.5
		Imp., very, extremely	152	16.9	290	27.3	442	22.5
16.	Parents don't approve	None, minor, no ans.	862	95.6	999	94.1	1861	94.8
		Imp., very, extremely	40	4.4	63	5.9	103	5.2
17.	Friends aren't going	None, minor, no ans.	856	94.9	994	93.6	1850	94.2
		Imp., very, extremely	46	5.1	68	6.4	114	5.8
18.	Can't use PHSE	None, minor, no ans.	759	84.1	796	75.0	1555	79.2
		Imp., very, extremely	143	15.9	266	25.1	409	20.8

* None, minor, no answer = Answers 1, 5 and Blank

Important, very, extremely = Answers 2, 3, and 4

B. Finances

By and large, the seniors already accepted by post high school educational institutions have a good idea where the money will come from, but even so, over 13% of such seniors need to find up to 19% of their funds, and an additional 8% of the seniors already accepted need over 20% of the cost. The situation for the other seniors planning to take PHSE this year is actually somewhat better - from 12% to 17% have not yet provided for all their finances. As might be expected, parental gifts are the main source of funds, particularly for those already accepted; over 25% of such seniors expect from 80% to 100% of their funds to come from parents. Savings and part time jobs apparently are expected to provide the bulk of the remainder of needed funds. Scholarships are important to many also, with almost 28% of seniors already accepted counting on scholarships for at least 20% of their funds. Table VI shows more detail on the sources of funds.

TABLE VI

Source of PHSE Funds

TOTALS			1946		329		176	
Survey Quest. No.	Source	Proportion of Total Funds	Applied and Accepted No.	%	Applied, not yet Accepted No.	%	Not yet Applied No.	%
32	Loans from Instit.	No source, no answ.	1697	87.2	291	88.4	167	94.9
		1-19%	150	7.7	22	6.7	6	3.4
		20%+	99	5.1	16	4.9	3	1.7
33	Loans from Family	No source, no answ.	1499	77.0	229	69.6	151	85.8
		1-19%	166	8.5	40	12.2	7	4.0
		20%+	281	14.5	60	18.2	18	10.2
34	Scholarships	No source, no answ.	1260	64.7	259	78.7	160	90.9
		1-19%	144	7.4	25	7.6	5	2.8
		20%+	542	27.9	45	13.7	11	6.3
35	Parental gifts	No source, no answ.	488	25.1	106	32.2	108	61.4
		1-19%	240	12.3	37	11.2	12	6.8
		20-79%	730	37.5	119	36.2	36	20.5
		80-100%	488	25.1	67	20.4	20	11.3
36	Savings	No source, no answ.	881	45.3	167	50.8	118	67.1
		1-19%	600	30.8	71	21.6	24	13.6
		20%+	465	23.9	91	27.6	34	19.3
37	Part-Time Jobs	No source, no answ.	709	36.4	110	33.4	92	52.3
		1-19%	723	37.2	88	26.8	22	12.5
		20%+	514	26.4	131	39.8	62	35.2
38	Still Needed	No source, no answ.	1532	78.7	272	82.7	153	87.0
		1-19%	258	13.3	34	10.3	13	7.4
		20-79%	149	7.7	20	6.1	8	4.5
		80-100%	7	.3	3	.9	2	.1

One other table is of interest here, showing major sources of funds by type of institution desired (Table VII). As expected, scholarships are far more important to seniors expecting to go to a four year degree institution, while parental gifts tend to be less available for seniors contemplating non-college education.

TABLE VII

Type of Institution Desired

Sources of Funds	Proportion of Total	4 yr. Degree		2 yr. Degree		2 yr. non-Deg.		V/T, B/C	
		No.	%	No.	%	No.	%	No.	%
	None	1190	63.0	363	87.7	329	91.9	591	94.
Scholarships	1-19	147	7.8	23	5.6	6	1.7	16	2.
	20+	552	29.2	28	6.7	23	6.4	18	2.
	None	600	31.8	152	36.7	168	46.9	445	71.
Parental Gifts	1-19	223	11.8	46	11.1	23	6.4	39	6.
	20+	1066	56.4	216	52.2	167	46.7	141	22.
	None	1470	77.8	347	83.8	322	89.9	574	91.
Still Needed	1-19	265	14.0	38	9.2	16	4.5	28	4.
	20+	154	8.2	29	7.0	20	5.6	23	3.
TOTAL		1889	100.0	414	100.0	358	100.0	625	100.

C. Capabilities

After the IQ scores were keypunched, some comparisons were made with IQ scores of high school seniors in two other areas; this comparison is described in some detail in Appendix D. The net result was that Bucks County seniors seemed to have relatively more high IQ scores than Pennsylvania seniors (1958 study) or St. Louis seniors (1959 study). For the purposes of this study, the Bucks County seniors were assigned to stanine classes according to IQ scores, without correcting for the particular test used, to permit conversion of IQ scores to an approximate college board score on a verbal test (see Appendix D for details). These stanine groupings were used for estimating capabilities of the Bucks County seniors.

Table VIII shows that the Middle Bucks region apparently contains a larger proportion of middle-to-high IQ seniors than either Upper or Lower Bucks. This pattern seems consistent with other results showing Middle Bucks with a higher college-going rate than the rest of the county.

TABLE VIII

IQ Stanine Groups, By Regions

		Upper Bucks		Middle Bucks		Lower Bucks		Total	
Stanine Group	IQ Range	No.	%	No.	%	No.	%	No.	%
9	134+	24	3.7	51	5.0	120	4.4	195	4.4
8	127-133	51	7.9	74	7.2	204	7.4	329	7.5
7	120-126	76	11.7	144	14.0	312	11.4	532	12.0
6	113-119	106	16.4	205	20.0	448	16.3	759	17.2
5	106-112	101	15.6	202	19.7	544	19.8	847	19.2
4	99-105	102	15.7	164	16.0	478	17.4	744	16.9
3	92- 98	83	12.8	110	10.7	338	12.3	531	12.0
2	85- 91	56	8.6	45	4.4	169	6.2	270	6.1
1	84-	49	7.6	30	2.9	129	4.7	208	4.7
		648		1025		2742		4415	

A comparison of stanines with class rank is shown in Table IX to determine the extent, if any, of underachievement by high ability seniors. If we assume stanines 7, 8, and 9 contain those best prepared for college, over 26% are in the lower 3/5 of their classes, and may have some trouble getting into the college of their choice. However, the wide spread shown in this table - 5 seniors in stanine 2 were ranked in top 10% of class, while 6 seniors in stanine 9 were ranked in lowest 20% of class - may just indicate the difficulty of using IQ as a measure of capability.

Some comparisons using stanines are shown in Table X. A few observations drawn from this table are:

1. There is a definite tendency for higher-ability seniors to plan on 4 year college, low ability seniors to stay out of school or plan on vocational or technical schools. Two year colleges seem to attract the middle-ability seniors. One wonders about the 12 to 26% of seniors in stanine 1 to 4 who want to enter 4 year degree programs.

2. Higher ability seniors plan to leave home, lower ability seniors plan to stay within commuting distance.

3. Higher ability seniors definitely tend to plan on taking Liberal Arts programs, other seniors tend more toward trade and industrial programs, but the trend isn't very strong.

TABLE IX

Stanine By Class Rank In Deciles

			RANK IN DECILES											
Stanines	**IQ Range**		1	2	3	4	5	6	7	8	9	10	None	Total
9	134+	No.	106	50	13	11	5	2	1	6	1	0	0	195
		%	54.4	25.6	6.7	5.6	2.6	1.0	.5	3.1	.5	.0	.0	100.0
8	127-133	No.	95	76	36	41	32	24	5	3	16	1	1	330
		%	28.8	23.0	10.9	12.4	9.7	7.3	1.5	.9	4.8	.3	.3	100.0
7	120-126	No.	108	101	81	57	54	47	25	21	26	13	1	534
		%	20.2	18.9	15.2	10.7	10.1	8.8	4.7	3.9	4.9	2.4	.2	100.0
6	113-119	No.	83	104	121	109	87	74	55	56	43	26	4	762
		%	10.9	13.7	15.9	14.3	11.4	9.7	7.4	7.3	5.6	3.4	.5	100.0
5	106-112	No.	52	78	90	84	101	114	97	90	88	51	3	848
		%	6.1	9.2	10.6	9.9	11.9	13.4	11.4	10.6	10.4	6.0	.4	100.0
4	99-105	No.	18	48	58	76	87	92	117	100	82	65	6	749
		%	2.4	6.4	7.7	10.2	11.6	12.3	15.6	13.4	10.9	11.0	.8	100.0
3	92- 98	No.	7	17	29	34	55	59	79	84	100	66	4	534
		%	1.3	3.2	5.4	6.4	10.3	11.1	14.8	15.7	18.7	12.4	.8	100.0
2	85- 91	No.	5	5	10	8	19	16	39	45	59	62	2	270
		%	1.9	1.9	3.7	3.0	7.0	5.9	14.4	16.7	21.9	23.0	.7	100.0
1	84-	No.	0	0	1	5	4	10	34	24	50	67	13	208
		%	.0	.0	.5	2.4	1.9	4.8	16.3	11.5	24.0	32.2	6.3	100.0
Totals		No.	474	479	439	425	444	438	452	429	465	351	34	4430
		%	10.7	10.8	9.9	9.6	10.0	9.9	10.2	9.7	10.5	7.9	.8	

TABLE X

Stanines vs Educational Plans, Desired Area, Type of Institution, and Subject. Percents only.

	Stanines								
Education Plans (#19)	9	8	7	6	5	4	3	2	1
1. None	1.0	8.6	9.9	14.5	23.6	34.0	37.1	50.7	48.
2. Voc.-tech.	1.0	4.8	5.9	10.1	12.4	15.4	17.4	17.1	26.
3. Bus.-Commer.	0	2.1	2.2	3.9	5.9	7.8	10.8	6.7	6.
4-5 Commun.-Jr. Coll.	2.1	8.2	13.5	18.0	18.7	16.7	15.3	11.8	8.
6-7 Four yr. College	94.4	72.1	61.5	45.8	31.7	18.8	11.2	6.2	2.
8. Other	1.5	4.2	7.0	7.7	7.7	7.3	8.2	7.5	8
Desired Area									
1. Within Commuting	17.9	41.4	43.6	50.1	59.6	61.5	60.4	60.8	53.
2. Too far to Comm.	76.9	51.1	45.3	35.8	21.2	15.0	10.8	7.0	9.
3. Don't Know	5.2	7.5	11.1	14.1	19.2	23.5	28.8	32.2	37.
Type of Institution									
1. Four Yr. Degree	95.3	75.4	67.7	51.7	40.1	26.4	20.0	11.9	14.
2. Two Yr. Degree	1.0	5.1	9.6	11.1	11.3	10.4	8.0	11.2	5.
3. Two Yr. Non-Degree	.6	3.6	4.8	9.2	9.5	9.5	13.2	6.6	4.
4. Voc.-Tech., B/C	2.5	6.4	7.3	11.4	13.9	18.2	20.4	21.1	27.
5. Continuing Ed.	0	1.2	1.5	2.2	3.1	4.1	3.3	4.4	2.
6. None Indicated	.6	8.3	9.1	14.4	22.1	31.4	35.1	44.8	45.

TABLE X (Cont'd)

Stanines vs Educational Plans, Desired Area, Type of Institution, and Subject. Percent only.

Subject Desired	Stanines 9	8	7	6	5	4	3	2	1
1. Business	3.6	5.4	8.7	9.1	10.8	13.6	13.6	11.9	10.
2. Engineering	14.4	18.0	12.8	10.7	10.9	9.5	9.5	7.5	7.
3. Teacher Ed.	10.3	12.5	17.5	20.9	12.9	11.1	6.2	6.0	2.
4. Nursing	2.0	6.1	7.3	6.6	6.4	6.4	3.3	4.4	2.
5. Medical Tech.	.5	1.8	1.6	1.0	.5	1.4	1.1	0	.
6. Art	3.6	3.0	2.8	3.6	2.4	2.5	1.3	1.1	.
7. Music	.5	1.2	.5	.7	1.6	.8	.5	.7	.
8. Home Economics	.5	.9	1.0	1.0	1.0	.2	1.1	.7	
9. Liberal Arts	62.1	38.3	32.2	19.8	16.7	8.9	7.6	4.4	6.
10. Agriculture	.5	.6	1.0	1.0	.5	1.0	.5	1.8	.
11. Secretarial	0	1.2	2.4	4.8	4.1	3.7	6.0	1.8	
12. Trade and Ind.	.5	1.5	1.5	4.1	4.3	4.5	7.8	8.2	14
13. Adult and Contin. Ed.	0	0	0	.2	.4	.4	.5	0	.
14. Other	1.0	1.2	1.8	2.5	5.6	4.8	6.5	7.0	9
15. None Indicated	.5	8.3	8.9	14.0	21.9	31.2	34.5	44.5	44
TOTAL NO.	195	329	532	759	847	744	531	270	2

D. Relationships Among Major Variables

Tables XI, XII, and XIII are various combinations of the three variables which this study is using to approximate the factors of money available for PHSE, ability to complete PHSE, and desire to undertake PHSE. These factors are considered most important in determining whether a high school senior decides to take further education after graduation.[2] The tables show a definite relation between high ability, lots of money available, and strong desire for PHSE. This, of course, is not exactly a surprising finding, and it is virtually impossible to say which factor causes the other. Also, because of the way the "money-available" class was constructed (by putting all "have not applied for admission" answers to questions 30 and 31 into the lowest money-available category), we simply do not know how much money any low-desire senior could make available for education if he really wanted it. Finally, the wide spread among class rank achievement categories for each stanine class indicates the looseness of this method of measuring ability. Therefore, this survey must be regarded as a first approximation in measurement of all three factors; hopefully, further surveys will be able to use more refined measures if, as, and when they are developed.

TABLE XI

Stanines By Strength of Expectation for PHSE

Strength of Expectation

Stanines	Applied and Accepted		Applied not Accepted		Not yet Applied		PHSE Later		No Plans		Total
	No.	%	No.	%	No.	%	No.	%	No.	%	No.
9	181	92.8	2	1.0	2	1.0	6	3.1	4	2.1	195
8	250	76.0	19	5.8	8	2.4	24	7.3	28	8.5	329
7	366	68.8	32	6.0	11	2.1	76	14.3	47	8.8	532
6	432	56.9	54	7.1	32	4.2	129	17.0	112	14.8	759
5	353	41.7	80	9.4	35	4.1	186	22.0	193	22.8	847
4	207	27.8	73	9.8	34	4.6	186	25.0	244	32.8	744
3	110	20.7	41	7.7	28	5.3	158	29.8	194	36.5	531
2	35	13.0	18	6.7	13	4.8	67	24.8	137	50.7	270
1	12	5.8	10	4.8	13	6.3	70	33.6	103	49.5	208
	1946	44.1	329	7.5	176	4.0	902	20.4	1062	24.0	4415

TABLE XII

Stanines By Money Available for PHSE

		MONEY AVAILABLE									
Stanines		2500+	2000	1500	1000	800	600	400	200	Less Than 200	Total
9	No.	65	47	32	20	1	3	2	5	20	195
	%	33.3	24.1	16.4	10.3	.5	1.5	1.0	2.6	10.3	100.0
8	No.	64	43	41	54	7	23	8	3	86	329
	%	19.5	13.1	12.5	16.4	2.1	7.0	2.4	.9	26.1	100.0
7	No.	69	69	79	84	18	43	22	12	136	532
	%	13.0	13.0	14.8	15.8	3.4	8.1	4.1	2.3	25.6	100.0
6	No.	59	73	70	138	27	51	45	14	282	759
	%	7.8	9.6	9.2	18.2	3.6	6.7	5.9	1.8	37.2	100.0
5	No.	44	53	82	106	24	52	51	18	417	847
	%	5.2	6.3	9.7	12.5	2.8	6.1	6.0	2.1	49.2	100.0
4	No.	23	28	41	78	21	38	36	20	459	744
	%	3.1	3.8	5.5	10.5	2.8	5.1	4.8	2.7	61.7	100.0
3	No.	6	16	21	40	16	20	23	22	367	531
	%	1.1	3.0	4.0	7.5	3.0	3.8	4.3	4.1	69.1	100.0
2	No.	2	1	10	18	6	8	8	9	208	270
	%	.7	.4	3.7	6.7	2.2	3.0	3.0	3.3	77.0	100.0
1	No.	3	4	3	8	3	2	2	2	181	208
	%	1.4	1.9	1.4	3.8	1.4	1.0	1.0	1.0	87.0	100.0
Total	No.	335	334	379	546	123	240	197	105	2156	4415
	%	7.6	7.6	8.6	12.4	2.8	5.4	4.5	2.4	48.8	100.0

TABLE XIII

Money Available By Strength of Expectation For PHSE

Money Available	Applied and Accepted		Applied, not Accepted		Not yet Applied		PHSE Later		No plans for PHSE		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
2500+	299	15.4	14	4.3	2	1.1	16	1.8	4	.4	335	7.6
2000-2499	285	14.6	21	6.4	7	4.0	19	2.1	2	.2	334	7.6
1500-1999	290	14.9	47	14.3	8	4.5	33	3.7	1	.1	379	8.6
1000-1499	401	20.6	72	21.9	21	11.9	47	5.2	5	.5	546	12.4
800	84	4.3	15	4.6	4	2.3	19	2.1	1	.1	123	2.8
600	180	9.2	31	9.4	13	7.4	14	1.6	2	.2	240	5.4
400	134	6.9	36	10.9	10	5.7	15	1.7	2	.2	197	4.5
200	47	2.4	23	7.0	8	4.5	27	3.0	0	.0	105	2.4
L.T.* 200	226	11.6	70	21.3	103	58.5	712	78.9	1045	98.4	2156	48.8
TOTAL	1946	100.0	329	100.0	176	100.0	902	100.0	1062	100.0	4415	100.0

*L.T. - Less Than

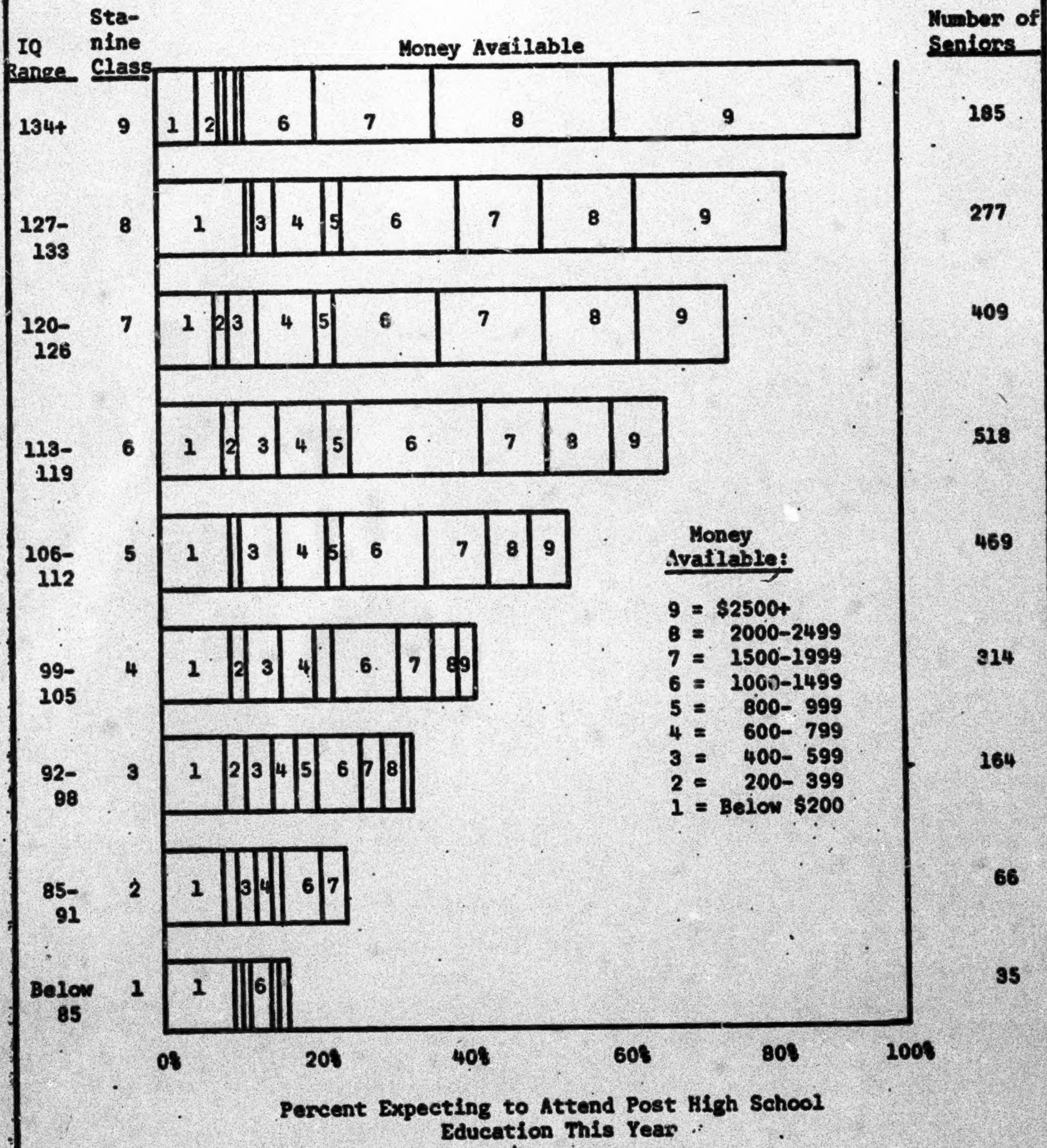
Estimates for Educational Policy Planning

The measures themselves, once they have been obtained, are needed to pursue the basic purpose of the overall project, which is to provide data summaries useful in educational planning, including estimates of the adequacy of current and projected facilities for post high school education. This requires estimates of maximum and minimum demand for the facilities by those most likely to use them; thus, for high school seniors, we need estimates of a "base-level" (or minimum) demand and a "theoretical-level" (or maximum) demand. Both of these levels depend in part on what the seniors *actually* do rather than what they *expect* to do, so these estimates cannot be completed until the follow-up survey of a 20% sample of the Bucks County seniors has been completed, analyzed, and actual attendance (or non-attendance) compared with expectations. This will be discussed in a subsequent working paper, but the general method can be described briefly here.

The bar graphs in Figure 1 show the percentage of seniors in each stanine group that expects to go on to all types of post high school education this year (Strength of Expectation categories 1, 2, and 3). If we assume that all expectations will materialize on schedule, then this distribution may be used as an estimate of minimum demand. However, plans change, and actual participation in post high school education will include some seniors who had not expected to go, and will exclude many who did expect to go. It is likely that the net change will be negative (total actually going will be less than total expecting to go) and will be different for different stanine groups. Thus, actual experience should give a more realistic estimate of the base-level minimum, particularly for projection purposes, since the proportion of high school seniors going on to college is expected to continue to increase in the future.

Estimating the maximum number of seniors that should or could attend post high school education institutions is a more difficult problem. Although we may have convictions that more of the higher capability seniors should go on, it would be very presumptuous to set an arbitrary proportion based merely on IQ scores. However, if we do not think of the results in terms of "should", we can arrive at a "theoretical-level" by assuming that all who expect to go will go, and add to this total a proportion of those who do not expect to go but actually do find a way to attend a post high school educational institution. The estimation of this proportion - which again should be different for different stanine groups - will be based on the sample follow-up survey.

Figure 1. Bucks County High School Seniors Expecting To Attend PHSE This Year, by Stanine, by Money Available



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3. "Measuring Educational Achievement," by R. L. Ebel, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1965, Chapter 8, especially pages 259-265.

4. "Higher Education and The Future of Youth in The Greater St. Louis Educational Area," Committee on Higher Educational Needs of Metropolitan St. Louis, January 22, 1960.

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APPENDIX A

Research Questions

What are the needs (by school district) for post high school education of high school Seniors?

A. What do they want to do?

1. What type of post high school institution do they want to attend? Part-time? Full-time? Day? Evening?
2. What type of educational program do they wish to pursue? Initially? Ultimately?
3. What are the occupational career interests of high school seniors for the immediate future?

B. What do they plan or expect to do?

1. What post high school institution do they plan to attend? Part-time? Full-time? Day? Evening?
2. What type of educational program do they plan to pursue now?
3. For those whose immediate plan is work only, what reasons do they give for not continuing their education?
4. What type of program have they applied for, if any?

C. What can they afford to do?

1. To what extent have they made financial plans, including work arrangements, to support their interests in post high school education?
2. What is the maximum contribution their families feel they can make annually toward support of their interests in post high school education?

3. To what extent have high school seniors applied for college scholarships and what is their value as a proportion of total cost?

D. What post high school educational opportunities are they qualified for?

1. What are the abilities of high school seniors?

2. What are the high school seniors eligible for?

E. What differences exist, if any, between what they desire, plan, can afford, and are qualified to do?

1. How do aspirations compare with expected achievement?

2. How do qualifications compare with achievement aspirations?

3. How do financial plans compare with achievement aspirations?

APPENDIX B

Copy of Questionnaire Given to Bucks County High School Seniors April, 1967

DO NOT WRITE IN THIS SPACE

ICN ☐2☐5 SIDN ☐☐☐☐☐☐

SDCN ☐☐☐0 HSCN ☐☐☐0☐1

FOLLOW-UP ☐

BUCKS COUNTY STUDY OF POST HIGH SCHOOL EDUCATION NEEDS 1968-1980

High School Senior Questionnaire

	No.	%
Follow-up	871	19.7
Non-follow	3544	80.3

Please PRINT your name and home address below:

Last Name ____ First Name ____ Mid. In. ____

Home Address ____ City ____

Today's Date: 04 / ☐☐ / 67
Mo Da. Yr.

Check One:

	☐ 1 Male	☐ 2 Female	TOTAL
No.	2252	2163	4415
%	51.0	49.0	100.0

DIRECTIONS:
Please be sure to answer every question below as sincerely and thoughtfully as you can. Answer every question even if your plans are not definite. Most of the questions can be answered by just marking an X in the box to the left of the answer you choose. Mark only one answer to each question.

PART I. HIGH SCHOOL PROGRAMS AND OCCUPATIONAL PLANS

1. Which one of the following high school programs is most like the one you are taking? Mark only one.

No.	%	
710	16.1	☐ 1 General - a program in which you take subjects required for graduation and many subjects you like but does not necessarily prepare you either for college or for a vocation.
2348	53.2	☐ 2 College Preparatory or Academic - a program that gives you the training and credits needed to: (1) enter a regular bachelor's degree program in a four-year college or university; or (2) enter a two-year program at a community or junior college or two-year university extension center.
981	22.2	☐ 3 Commercial or Business - a program that prepares you to work in an office; for example, as a secretary or bookkeeper.
369	8.4	☐ 4 A program very different from above.
7	.2*	

(Continue to next page)

* No Answer

ICN
2 5

No. **%**

2. If you are in a vocational or technical program at your home school or at a vocational-technical school, please mark one box below, opposite the program that is most like the one you are taking. A vocational-technical program gives you the training and credits to: (1) enter directly into business or industry with marketable skills; (2) enter directly into business or industry at a technical level; or (3) enter directly into a school or college at a technical level after you leave high school

3207 72.6 ☐ 1 I am not in a vocational or technical program.

45 1.02 ☐ 2 Home Economics (Homemaking, etc.)

44 1.0 ☐ 3 Distributive Education (Sales, merchandising and other programs relating to distribution of goods and services.)

395 9.0 ☐ 4 Business Education

22 .50 ☐ 5 Agriculture (Horticulture, floriculture, etc.)

70 1.6 ☐ 6 Health (Medical or dental-office assistant, dental assistant, medical assistant, practical nursing, etc.)

339 7.7 ☐ 7 Trade and Industrial

Art
Practical art
Appliance repair
Auto body repair
Auto mechanics I & II
Diesel
Machine shop
Plumbing
Carpentry
Electrical
Baking, commercial
Beauty culture I
Beauty culture II
Commercial art
Restaurant practice
Building maintenance
Printing - letter press
Printing - offset
Welding
Heating - ventilating
Pattern dftg. metal fab
Refrigeration - air cond.
Power mechanics

124 2.8 ☐ 8 Technical

Diesel
Electronics
Electrical
Data processing
Chemistry
Civil-highway
Architectural drafting
Mechanical drafting
Design drafting
Instrumentation

90 2.0 ☐ 9 A program very different from above.

79 1.8*

---

3. Which one of the following occupation groups do you expect to enter as soon as you complete your education? Mark one of these even if you have not definitely made up your mind. Mark only one from 01 to 12.

64 1.4 ☐ 01 Housewife

(Question 3 continued next page)

* No Answer

No. % ICW

25

Question 3 (Cont'd.)

890 20.2 ☐ 02 **Clerical** - (Typical occupations: bookkeeper, cashier, office machine operators, general clerks, stock clerks, stenographers, typist clerks, etc.)

These occupations are concerned with preparing, transcribing, transferring, systematizing or preserving written communications and records. The duties of most occupations in this group are performed by mental and manual processes, but also may include the operation of such devices as bookkeeping machines or calculators.

85 1.9 ☐ 03 **Service Worker** - (Typical occupations: hotel maids, housekeepers for hotels and institutions, chefs and cooks, waiters, guards and watchmen, firemen and policemen, charwomen and cleaners, janitors, porters, elevator operators, etc.)

This group includes those occupations concerned with the performance of services for persons that require either direct contact or close association with the individual; occupations concerned with the protection of individuals or of public or private property; occupations related to the cleaning of the interior and equipment of buildings; and occupations concerned with the moving or carrying of equipment, baggage and other articles.

177 4.0 ☐ 04 **Managerial** - (Typical occupations: foremen, executives, supervisors, self-employed, etc.)

These occupations are concerned primarily with responsible policy-making, planning, supervising, coordinating or guiding the work activities of others, usually through intermediate supervisors. Typical occupations: managers or presidents of enterprises; superintendents of construction projects; and, because of their official capacities, treasurers and executive secretaries. All supervisory foremen who spend more than 80 per cent of their time on supervisorial duties are also included in this group. "Working" foremen who spend most of their time in operative capacities are included in the appropriate group according to the type of work done.

1536 34.8 ☐ 05 **Professional** - (Typical occupations: mechanical, civil or electrical engineer, lawyer, physicist, actuary, teacher, doctor, etc.)

These occupations require a high degree of independent mental activity by the worker and are concerned with theoretical and practical aspects of complex fields of endeavor. Most occupations in the group require extensive and comprehensive academic courses of study or experience of a scope and character to provide the necessary background.

418 9.5 ☐ 06 **Skilled Worker** - (Typical occupations: bakers, tailors, carpenters, typesetters, plumbers, all-round machinists, toolmakers, welders, electricians, mechanics, etc.)

These craft and manual occupations require predominantly a thorough and comprehensive knowledge of processes involved in the work, the exercise of independent judgment, usually a high degree of manual dexterity and, in some occupations, extensive responsibility for valuable products or equipment. Workers in these occupations usually become qualified by serving apprenticeships or completing extensive training periods. Foremen of manual and craft workers who spend more than 20 per cent of their time in actual operations are included within the occupations of the workers.

(Question 3 continued next page)

No. % ICN 25

Question 3 (Cont'd.)

100 2.3 ☐ 07 Sales Person - (Typical occupations: salesclerks, retail and wholesale salesmen, etc.)

These occupations are concerned with the sale of commodities, investments, real estate and services. Also included are some occupations closely identified with sales transactions. Typical occupations: salesclerks; salespersons of wearing apparel, household goods, automotive equipment; printing, publishing and advertising salesmen; percision instruments salesmen; communications equipment salesmen. Related occupations include demonstrators and comparison shoppers. Sales personnel who require a great deal of technical or professional knowledge of college level don't belong here. They come under semi-professional or professional employees depending on the educational qualifications required.

46 1.0 ☐ 08 General Worker - (Typical occupations: wheelbarrow man; laborer, any industry; assembler helper; flagman; bag tier; etc.)

These occupations involve the performance of simple duties that may be learned quickly and that require the exercise of little or no independent judgment, though a familiarity with the occupational environment may be necessary or desirable. No experience in the occupation itself is required for those seeking employment.

91 2.1 ☐ 09 Administrative - (Typical occupations: administrative assistant, time study engineers, cost estimators, office managers, etc.)

These occupations are primarily concerned with the performance of office or nonmanual field work directly related to management policies or general business operations. Administrative employees customarily exercise discretion and independent judgment and work under general supervision carrying out special assignments and tasks. If special professional or semi-professional education is required the appropriate box for these groups of occupations should be marked.

54 1.2 ☐ 10 Semi-Skilled Worker - (Typical occupations: assembler of equipment, machine operator, coil winder, routeman, truck driver, etc.)

These occupations are characterized by one or more of the following requirements: the exercise of manipulation ability of a high order, but limited to a well-defined work routine; major reliance upon materials or products; judgment limited by its application to a narrow field or by having important decisions made by others. These occupations may require the performance of a limited part of a craft or skilled occupation.

(Question 3 continued next page)

Question 3 (Cont'd.)

447 10.1 ☐ 11 **Semi-Professional** - (Typical occupations: laboratory technicians and assistants, X-ray technicians, draftsmen, surveyors, electronic technicians, nurses, etc.)

These occupations require rather extensive education or experience or a combination of both for the proper performance of the work. The fields of endeavor of the semi-professional or technical worker do not usually require as broad a background or as much initiative and judgment as the professional occupations in dealing with complicated situations. The occupations are more typically confined to narrower fields of activity than the professional occupations and are most often concerned with the technical or mechanical aspects of broad, theoretical fields.

499 10.2 ☐ 12 **Other** - (Military service or any other, etc.)

---

4. How sure are you that you will enter the occupation group you chose in Question 3?

1719 39.0 ☐ 1 I definitely will enter ☐ 3 I may not enter 386 5.5

2017 45.7 ☐ 2 I probably will enter ☐ 4 I don't know 374 8.5

19 2.7*

PART II. POST HIGH SCHOOL EDUCATION
PLANS FOLLOWING HIGH SCHOOL

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5. What is the **greatest** amount of education you **want** during your life?

3 .06 ☐ 1 I don't expect to finish high school.

1055 23.9 ☐ 2 I expect to graduate from high school.

629 14.2 ☐ 3 I expect to complete a vocational or technical training program beyond 12th grade.

281 5.4 ☐ 4 I expect to complete a commercial or business training program beyond 12th grade.

408 9.2 ☐ 5 I expect to complete a community or junior college program or a two-year university extension program.

190 4.3 ☐ 6 I expect to obtain some (less than four years) regular college or university training.

973 22.0 ☐ 7 I expect to graduate from a regular four-year college or university.

869 19.7 ☐ 8 I expect to study for advanced degrees beyond four-year college or university.

7 .2*

(Continue to next page)

* No Answer

ICH

2	5

6. What are your plans for the year beginning July 1967?

No.	%		
339	7.7	☐ 1	Enter the military service
843	19.1	☐ 2	Take a full-time job that does not require taking on-the-job education or after-hours education
376	8.5	☐ 3	Take a full-time job that does require taking on-the-job education or after-hours education
1081	24.5	☐ 4	I expect to attend some type of school or college full-time, with no job.
1027	23.3	☐ 5	I expect to attend some type of school or college full-time, with a part-time job.
179	4.1	☐ 6	Take a full-time job and go to school or college part-time
334	7.6	☐ 7	I have plans not listed above.
228	5.2	☐ 8	I don't know what I will be doing after July 1, 1967.
8	.2*		

7. Where will your planned activities, mentioned in Question 6, for next year be located?

No.	%		
2341	30.4	☐ 1	Within commuting distance of your present home.
1217	27.6	☐ 2	Too far away to commute
834	18.9	☐ 3	I don't know.
23	.5*		

QUESTIONS 8-18

If you are not planning to attend school or college in the near future, after high school, how important to you is each of the following as a reason for not doing these things? Be sure to reply to each reason.

8. Attending school or college after high school would not help me to do the things in which I am most interested.

No.	%					No.	%
3162	71.6	☐ 1	Doesn't apply to me or not a reason.	☐ 3	Very important	140	3.2
109	2.5	☐ 2	Extremely important	☐ 4	Important	333	7.5
137	3.1*			☐ 5	Minor importance	534	12.1

***** ***** *****

9. I want to get a job and start earning a living as soon as possible.

No.	%					No.	%
2566	58.1	☐ 1	Doesn't apply to me or not a reason	☐ 3	Very important	380	8.6
521	11.8	☐ 2	Extremely important	☐ 4	Important	459	10.4
227	5.1*			☐ 5	Minor importance	262	5.9

***** ***** *****

(Continue to next page)

* No Answer

ICS

2	5

10. I have to start earning a living in order to support myself.

No.	%			No.	%
2852	64.6	☐ 1 Doesn't apply to me or not a reason.	☐ 3 Very important	224	5.1
280	6.3	☐ 2 Extremely important	☐ 4 Important	420	9.5
182	4.1#		☐ 5 Minor importance	457	10.4

***** ***** *****

11. It would cost more than my parents can afford.

No.	%			No.	%
3079	69.7	☐ 1 Doesn't apply to me or not a reason.	☐ 3 Very important	167	3.8
192	4.3	☐ 2 Extremely important	☐ 4 Important	296	6.7
197	4.5#		☐ 5 Minor importance	484	11.0

***** ***** *****

12. I would rather get married.

No.	%			No.	%
3171	71.8	☐ 1 Doesn't apply to me or not a reason.	☐ 3 Very important	103	2.3
160	3.6	☐ 2 Extremely important	☐ 4 Important	219	5.0
186	4.2#		☐ 5 Minor importance	576	13.0

***** ***** *****

13. My high school grades are too low.

No.	%			No.	%
3055	71.8	☐ 1 Doesn't apply to me or not a reason.	☐ 3 Very important	151	3.4
179	4.1	☐ 2 Extremely important	☐ 4 Important	398	9.0
185	4.2#		☐ 5 Minor importance	447	10.1

***** ***** *****

14. I don't like to study.

No.	%			No.	%
3063	69.4	☐ 1 Doesn't apply to me or not a reason.	☐ 3 Very important	122	2.8
178	4.0	☐ 2 Extremely important	☐ 4 Important	318	7.2
185	4.2#		☐ 5 Minor importance	549	12.4

***** ***** *****

15. I don't think I have the ability.

No.	%			No.	%
3274	74.2	☐ 1 Doesn't apply to me or not a reason.	☐ 3 Very important	114	2.6
123	2.8	☐ 2 Extremely important	☐ 4 Important	250	5.7
190	4.3#		☐ 5 Minor importance	464	10.5

***** ***** *****

(Continue to next page)

# No Answer

ICN 2 5

16. My parents or guardians do not want me to go.

No.	%			No.	%
3618	82.0	☐ 1 Doesn't apply to me or not a reason.	☐ 3 Very important	19	.43
27	.61	☐ 2 Extremely important	☐ 4 Important	73	1.7
			☐ 5 Minor importance	489	11.1
189	4.3*				

***** ***** *****

17. Most of my friends will not go to school or college after high school.

No.	%			No.	%
3395	76.9	☐ 1 Doesn't apply to me or not a reason.	☐ 3 Very important	22	.50
35	.80	☐ 2 Extremely important	☐ 4 Important	71	1.6
			☐ 5 Minor importance	699	15.8
193	4.4*				

***** ***** *****

18. I probably could not use additional education on the job.

No.	%			No.	%
3258	73.8	☐ 1 Doesn't apply to me or not a reason.	☐ 3 Very important	99	2.2
116	2.6	☐ 2 Extremely important	☐ 4 Important	71	1.6
			☐ 5 Minor importance	518	11.7
197	4.5*				

***** ***** *****

---

19. If you are planning to continue your education after you leave high school, what type of school or college do you plan to attend?

No.	%	
1071	24.7	☐ 1 I am not planning to go to school or college after I leave high school.
536	12.1	☐ 2 Vocational or technical school beyond 12th grade
245	5.5	☐ 3 Commercial or business school beyond 12th grade
106	2.4	☐ 4 Community or junior college or two-year university extension center part-time.
547	12.4	☐ 5 Community or junior college or two-year university extension center full-time.
47	1.1	☐ 6 Four-year college or university part-time
1538	34.6	☐ 7 Four-year college or university full-time
315	7.1	☐ 8 Other
10	.2*	

---

* No Answer

(Continue to next page)

ICN
2 | 5

20. How likely are you to attend the type of school or college you marked in Question 19?

No.	%			No.	%
1091	24.7	☐ 1 I am not planning to go to school or college after high school.	☐ 3 I am likely to attend.	544	12.3
			☐ 4 I may possibly attend.	401	9.1
2370	53.7	☐ 2 I am almost sure to attend.			
9	.2*				

21. When do you plan to begin your education at the school or college of your choice?

No.	%	
1053	23.9	☐ 1 I do not plan to go to school or college after high school.
2439	55.2	☐ 2 I plan to enter a school or college right after I leave high school.
212	4.8	☐ 3 I plan to enter a school or college after completing military service.
279	6.3	☐ 4 I plan to enter a school or college after I have worked a year or more.
414	9.4	☐ 5 I may attend a school or college sometime in the future, but my plans are not definite.
21	.5*	

22. Which one of the following programs would you most like to complete after you leave high school? If your choice is not on the list, mark the one that is closest to it. Mark one even if you have not definitely made up your mind, but mark only one from 01 to 50.

No.	%	
993	22.5	☐ 01 I don't plan to go to a school or college after I leave high school.

FOUR-YEAR COLLEGE OR UNIVERSITY PROGRAMS

No.	%			No.	%
209	4.7	☐ 02 Business	☐ 10 Liberal arts (Science related-physical and natural sciences)	224	5.1
189	4.3	☐ 03 Engineering	☐ 11 Liberal arts (Non-science - pre-law, pre-medicine, pre-theology, literature, etc.)	382	8.7
451	10.2	☐ 04 Teacher education			
151	3.4	☐ 05 Nursing	☐ 12 Agriculture	22	.5
29	.7	☐ 06 Medical technology	☐ 13 Textiles design, engineering and chemistry	17	.4
65	1.5	☐ 07 Art			
29	.7	☐ 08 Music	☐ 14 Other programs	95	2.2
26	.6	☐ 09 Home economics			

(Question 22 continued next page)

* No Answer

ICR

2	5

Question 22 (Cont'd.)

COMMUNITY OR JUNIOR COLLEGE OR TWO-YEAR UNIVERSITY EXTENSION CENTER

No.	%			Programs Allowing Transfer to Four-Year Colleges or Universities			Programs Lest Likely to Allow for Transfer to Four-Year Colleges or Universities	No.	%
70	1.2	☐	15	Liberal arts (Non-Science)	☐	25	Practical nursing	15	.3
45	1.0	☐	16	Liberal arts (Science related)	☐	26	Medical or dental assistant	13	.3
105	2.4	☐	17	Teacher education	☐	27	Electrical engineering technology	20	.5
19	.43	☐	18	Medical technology	☐	28	Laboratory or engineering technology	10	.2
19	.43	☐	19	Basic engineering	☐	29	Data processing technology	59	1.3
86	1.9	☐	20	Business management	☐	30	Business administration	46	1.0
28	.63	☐	21	Art	☐	31	Retail merchandising	20	.5
11	.24	☐	22	Music	☐	32	Secretarial (All levels)	152	3.4
6	.13	☐	23	Home economics	☐	33	Other programs	23	.52
25	.6	☐	24	Other programs					

VOCATIONAL OR TECHNICAL PROGRAMS BEYOND 12th GRADE

(Length of programs will vary)

No.	%			
208	4.7	☐	34	Trade and industrial programs (carpentry and other trades, machine operators, auto mechanics, etc.)
4	.1	☐	35	Home economics
23	.52	☐	36	Distributive education programs (Sales, merchandising and other programs relating to distribution of goods and services.)
16	.4	☐	37	Agriculture (Horticulture, floriculture, etc.)
136	3.1	☐	38	Technical programs (Laboratory technician, engineering technology, data processing technology and related technical specializations.)
71	1.6	☐	39	Health programs (Practical nursing and other programs for support of the health professions.)
166	3.6	☐	40	Other programs

(Question 22 continued next page)

Question 22 (Cont'd.)

ICN
2	5

CONTINUING EDUCATION PROGRAMS
(Not for college credit--these programs are usually given in the evenings at university extension centers and local high schools)

No.	%			No.	%
45	16.9	☐ 41 Business management	☐ 46 General adult education programs (Art, hobbies, etc.)	7	.2
22	.5	☐ 42 Accounting	☐ 47 Real estate management	2	.04
32	.72	☐ 43 Electronic technology	☐ 48 Basic adult education (Reading, writing and arithmetic)	0	0.0
8	.18	☐ 44 Engineering technology	☐ 49 Citizenship training	0	0.0
1	.02	☐ 45 Special seminar programs of interest to the community	☐ 50 High school completion programs	6	.1
14	.3*				

---

23. Have you taken college entrance examinations?

No.	%			No.	%
2448	55.4	☐ 1 Yes	2. ☐ 2 No	1913	43.3
			3. ☐ 3 I don't think so.	39	.9
14	.3*				

---

24. How many schools or colleges have you made written application to?

No.	%			No.	%
1904	43.1	☐ 1 I have not made written application to any school or college.	4. ☐ 4 Three	536	12.1
887	20.1	☐ 2 One	5. ☐ 5 Four	274	6.2
601	14.0	☐ 3 Two	6. ☐ 6 Five or more	197	4.5

---

25. Have you been accepted to attend a school or college after you leave high school?

No.	%			No.	%
1771	40.1	☐ 1 I have not made written application to attend a school or college after high school.			
1972	44.7	☐ 2 Yes.	☐ 4 I have been accepted by at least one but have not yet decided to attend.	59	1.3
540	12.2	☐ 3 No.			

(Continue to next page)

* No Answer

ICN

2	5

No. %

26. If you have been accepted for admission to a school or college and expect to attend, please PRINT the name, city, state or country in the space provided.

Name of Institution:
City:
State or Country:

1967 44.6 ☐ 1 Yes, I have been accepted by a school or college and expect to attend.

1842 41.7 ☐ 2 I have not applied for admission to a school or college after I leave high school.

472 10.7 ☐ 3 I have not been accepted for admission to a school or college.

134 3.0# --

27. How far from your home is the school or college you expect to attend?

1685 38.2 ☐ 1 I have not applied for admission to a school or college after I leave high school.

1148 26.0 ☐ 2 Within commuting distance from my home and within Pennsylvania

120 2.7 ☐ 3 Within commuting distance from my home and outside Pennsylvania

717 16.2 ☐ 4 Too far to commute daily and within Pennsylvania

587 13.3 ☐ 5 Too far to commute daily and outside Pennsylvania

140 3.2 ☐ 6 I have no plans regarding which school or college I will attend.

18 .4# --

28. Where do you expect to live while attending your chosen school or college?

1678 38.0 ☐ 1 I have not applied for admission to a school or college after I leave high school.

991 22.4 ☐ 2 At home with my family

1385 31.4 ☐ 3 In a dormitory at the school or college

53 1.2 ☐ 4 Away from home, with friends or relatives

111 2.5 ☐ 5 Away from home, in a room or apartment near the school or college

37 .8 ☐ 6 Someplace not mentioned above

138 3.1 ☐ 7 I have no plans regarding where I will live while I am attending the school or college of my choice.

22 .5# --

(Continue to next page)

No Answer

ICN
2 5

29. Which one of the following best describes the type of school or college you expect to attend?

No.	%			No.	%
1663	37.7	☐ 1 I have not applied for admission to a school or college after leaving high school.			
1470	33.3	☐ 2 A public school or college	☐ 4 A private, independent school or college	662	15.0
288	6.5	☐ 3 A church-related school or college	☐ 5 I don't know which type.	307	7.0
25	.6*				

PART III. FINANCIAL PLANS FOR MEETING COST OF POST HIGH SCHOOL EDUCATION

30. How much money will you need to complete your first year at your chosen school or college? Do not count living expenses. Include only the cost of tuition, books and fees. Include the full amount even if you expect to obtain some of the money from scholarships or other sources.

No.	%			No.	%
1773	40.2	☐ 1 I have not applied for admission to a school or college after leaving high school.			
139	3.1	☐ 2 Less than $200	☐ 5 $600 to $799	360	8.2
298	6.7	☐ 3 $200 to $399	☐ 6 $800 to $999	300	6.8
573	13.0	☐ 4 $400 to $599	☐ 7 $1000 or more	928	21.0
44	1.0*				

31. How much money do you expect you will need for living expenses in your first year of attendance at your chosen school or college? Include the cost of room, board, spending money, travel, etc. Include all expenses.

No.	%			No.	%
1787	40.5	☐ 1 I have not applied for admission to a school or college after leaving high school.			
897	20.3	☐ 2 Less than $500	☐ 5 $1500 to $1999	265	6.0
657	14.9	☐ 3 $500 to $999	☐ 6 $2000 to $2499	110	2.5
558	12.6	☐ 4 $1000 to $1499	☐ 7 $2500 or more	93	2.1
48	1.1*				

(Continue to next page)

* No Answer

ICN

2	3

QUESTIONS 32-38

Of the total amount of money you need for your first year at your chosen school or college, what per cent do you expect to get from one or more of the following sources? If you are not taking additional education mark X in Column #1 opposite each source of funds or question. If you are taking additional education choose the closest answer and mark X in the appropriate column. Be sure you respond to each source or question.

	Doesn't apply to me or not a source	Per cent					
		1-19%	20-39%	40-59%	60-79%	80-100%	
	1	2	3	4	5	6	No Answer
32. Loans from or through institutions I expect to attend.	3715	200	80	35	10	11	363
33. Loans from family, friends and/or other sources (Bank, credit union, etc.)	3356	240	167	138	62	78	374
34. Scholarships	3213	195	249	186	84	105	384
35. Parents, guardian and/or relatives (Gift or legacy)	2157	338	331	315	347	625	302
36. Savings accumulated before entering school or college.	2570	758	333	197	82	133	342
37. Part-time or summer jobs while attending school or college.	2347	905	447	225	90	121	280
38. After all of the above sources are combined what percentage will you still need from some other source?	3372	347	145	55	12	23	460
	1	2	3	4	5	6	

NOTE:

Does the total per cent of money you need equal about 100%?

		Percentages						
		1.	2.	3.	4.	5.	6.	No Answer
(Stop)	32.	84.1	4.5	1.8	.8	.2	.2	8.2
	33.	76.0	5.4	3.8	3.1	1.4	1.8	8.5
	34.	72.8	4.4	5.6	4.2	1.9	2.4	8.7
	35.	48.9	7.7	7.5	7.1	7.9	14.1	6.8
	36.	58.2	17.2	7.3	4.5	1.6	3.0	7.7
	37.	53.2	20.5	1.0	5.0	2.0	2.7	6.3
	38.	76.4	7.9	3.3	1.2	.3	.5	10.4

APPENDIX B

Supplement

Added Classes Derived From Survey Data

	No.	%
1. Area of Location		
1 = Lower Bucks	2742	62.1
2 = Middle Bucks	1025	23.2
3 = Upper Bucks	648	14.7
2. Strength of Expectation for PHSE		
1 = Applied, accepted, and expect to go	1946	44.1
2 = Applied, not yet accepted, expect to go	329	7.5
3 = Not yet applied, expect to go	176	4.0
4 = Expect to go later	902	20.4
5 = No plans for PHSE	1062	24.0
3. Strength of Expectation - Model Version		
1 = Applied, expect to go	2275	51.6
2 = Not yet applied, expect to go	176	4.0
3 = Expect to go later	902	20.4
4 = No plans for PHSE	1062	24.0
4. Desired Area Next Year		
1 = Within commuting distance		
2 = Too far to commute		
5. Money Available for PHSE		
1 = Less than $ 200	2156	48.8
2 = $ 200- 399	105	2.4
3 = 400- 599	197	4.5
4 = 600- 799	240	5.4
5 = 800- 999	123	2.8
6 = 1000-1499	546	12.4
7 = 1500-1999	379	8.6
8 = 2000-2499	334	7.5
9 = 2500 up	335	7.6
6. Money Available - Model Version		
1 = $1000 up	1594	36.1
2 = 400-999	560	12.7
3 = Less than $400	2261	51.2
7. Time Desired for PHSE		
1 = Full time	2450	55.5
2 = Part time	888	20.1
3 = Don't know	1077	24.4

	No.	%
8. Time Desired - Model Version		
1 = Day time	2450	55.5
2 = Night time	1965	44.5
9. Type of Institution Desired		
1 = 4 Year Degree	1889	42.8
2 = 2 Year Degree	414	9.4
3 = 2 Year Non-Degree	358	8.1
4 = Voc/Tech, Bus/Commercial	625	14.1
5 = Continuing Education	123	2.8
6 = None Indicated	1006	22.8
10. Type of Institution Desired - Model Version		
1 = 4 Year Degree	1889	42.8
2 = 2 Year Degree	414	9.4
3 = All Other	2112	47.8
11. Subject Desired		
1 = Business	457	10.4
2 = Engineering	483	10.9
3 = Teacher Education	556	12.6
4 = Nursing	250	5.7
5 = Medical Technology	48	1.1
6 = Art	110	2.5
7 = Music	40	.9
8 = Home Economics	36	.8
9 = Liberal Arts	841	19.0
10 = Agriculture	38	.9
11 = Secretarial	152	3.4
12 = Trade and Industrial	208	4.7
13 = Adult and Continuing Education	14	.3
14 = All Other	189	4.3
15 = None Indicated	993	22.5

APPENDIX C

Copy of Data Form For Recording IQ Scores and Class Rank From Students' Cumulative Records

DO NOT WRITE IN THIS SPACE

ICN 2 6 SIDN ☐☐☐☐☐☐

SDCN ☐☐☐ HSCN ☐☐☐☐

FOLLOW-UP ☐ CCN ☐☐☐

BUCKS COUNTY STUDY OF POST HIGH SCHOOL EDUCATION NEEDS 1968-1980

School Record Data

Please PRINT student's name and address below:

Last Name ____ First Name ____ Mid.In. ____

Home Address ____ City ____

Today's Date: ☐☐6
Mo. Da. Yr.

Check one: 1 ☐ Male 2 ☐ Female

Did the student graduate from high school or vocational-technical high school?

1 ☐ Yes 2 ☐ No

STANDARDIZED MENTAL MATURITY TEST (IQ)

DIRECTIONS:
Record the data from the most recent standardized mental maturity test taken by the student.

No.			Name of Test	Year Given	Total IQ Score 100 10 1
2103	☐	1	California Test of Mental Maturity	19☐☐	☐☐☐
947	☐	2	The Lorge-Thorndike Intelligence Tests	19☐☐	☐☐☐
7	☐	3	The Henmon-Nelson Test of Mental Ability Revised Edition, Form A	19☐☐	☐☐☐
2	☐	4	The Henmon-Nelson Test of Mental Ability Revised Edition, Form B	19☐☐	☐☐☐
272	☐	5	Otis Quick-Scoring Mental Ability Tests, Beta	19☐☐	☐☐☐
812	☐	6	Otis Quick-Scoring Mental Ability Tests, Gamma	19☐☐	☐☐☐
45	☐	7	Otis Quick-Scoring Mental Ability Tests, New Edition, Beta	19☐☐	☐☐☐
32	☐	8	Otis Quick-Scoring Mental Ability Tests, New Edition, Gamma	19☐☐	☐☐☐
130	☐	9	____	19☐☐	☐☐☐
10	☐	10	Student does not have an I.Q.		

CLASS RANKING

DIRECTIONS
Please mark an X in the box opposite the student's class ranking whether the ranking is by tenths (deciles) or fifths (quintiles).

Tenths (Deciles)		Fifths (Quintiles)
☐ 11 1st tenth (Highest)	☐ 16 6th tenth	☐ 21 1st fifth (Highest)
☐ 12 2nd tenth	☐ 17 7th tenth	☐ 22 2nd fifth
☐ 13 3rd tenth	☐ 18 8th tenth	☐ 23 3rd fifth
☐ 14 4th tenth	☐ 19 9th tenth	☐ 24 4th fifth
☐ 15 5th tenth	☐ 20 10th tenth (Lowest)	☐ 25 5th fifth (Lowest)

APPENDIX C

Supplement

Added Classes Derived From Cumulative Record Data

	No.	%
1. Class Rank in Deciles		
1 = Top 10%		
2 = 2nd 10%		
3 = 3rd 10%		
4 = 4th 10%		
5 = 5th 10%		
6 = 6th 10%		
7 = 7th 10%		
8 = 8th 10%		
9 = 9th 10%		
10 = 10th 10%		
11 = No class rank available		
2. "Capability" Groups - Stanines		
1 = IQ below 85	208	4.7
2 = IQ 85- 91	270	6.1
3 = IQ 92- 98	531	12.0
4 = IQ 99-105	744	16.9
5 = IQ 106-112	847	19.2
6 = IQ 113-119	759	17.2
7 = IQ 120-126	532	12.0
8 = IQ 127-133	329	7.5
9 = IQ 134 and up	195	4.4
3. Capability Groups - Model Version		
1 = IQ 127 and up	524	11.9
2 = IQ 120-126	532	12.0
3 = IQ 99-119	2350	53.2
4 = IQ Below 99	1009	22.9

APPENDIX D

IQ-STANINE DISTRIBUTIONS

The Stanine Score

One method for summarizing data into a single digit score associated with a normal distribution assigns each score to a "stanine" class. The word stanine is derived from standard nine groups; the middle 7 stanine classes are each 1/2 a standard deviation in width, and the outer two classes are open ended. The classes can be described as follows:[3]

TABLE XIV

Stanine Class	Interval Limits Lower	Interval Limits Upper	Percent of Distribution in Stanine Class
1	0	$\bar{x}-\frac{7}{4}\sigma$	4%
2	$\bar{x}-\frac{7}{4}\sigma$	$\bar{x}-\frac{5}{4}\sigma$	7%
3	$\bar{x}-\frac{5}{4}\sigma$	$\bar{x}-\frac{3}{4}\sigma$	12%
4	$\bar{x}-\frac{3}{4}\sigma$	$\bar{x}-\frac{1}{4}\sigma$	17%
5	$\bar{x}-\frac{1}{4}\sigma$	$\bar{x}+\frac{1}{4}\sigma$	20%
6	$\bar{x}+\frac{1}{4}\sigma$	$\bar{x}+\frac{3}{4}\sigma$	17%
7	$\bar{x}+\frac{3}{4}\sigma$	$\bar{x}+\frac{5}{4}\sigma$	12%
8	$\bar{x}+\frac{5}{4}\sigma$	$\bar{x}+\frac{7}{4}\sigma$	7%
9	$\bar{x}+\frac{7}{4}\sigma$	∞	4%

Frequent use has been made of stanine scores in summarizing IQ data. When "deviation IQ" scores (which are standardized to a mean of 100 and standard deviation of 15) are fit into stanine classes, the IQ limits would be approximately:

TABLE XV

Stanine	Deviation IQ Scores	Percent of Population
1	Below 74	4%
2	74- 81	7%
3	82- 88	12%
4	89- 96	17%
5	97-103	20%
6	104-111	17%
7	112-118	12%
8	119-126	7%
9	Above 126	4%

This presumably represents the distribution of deviation of IQ scores of the complete population, regardless of age or any other characteristic. If a subset of the population were sampled, we could compare the sample with the entire population by computing the percent of the sample falling into each stanine group. We could also construct separate IQ intervals for each stanine, based on the sample mean and standard deviation, so the percentage of the sample contained in each stanine class would be as shown in Table XIV.

Comparison of Bucks County Seniors With Other Seniors

In the Bucks County study, it was obvious that a group of high school seniors should be very different from the entire population, and would very probably be different from the population of 16-18 year olds. Therefore the question was whether the Bucks County seniors would be any different from other groups of high school seniors. Since there is no nationwide sample of IQ's of high school seniors, the only comparisons available were based on two studies which developed stanine IQ scores for high school seniors; one study was concerned with seniors in and around St. Louis, Missouri in 1959,[4] the other was concerned with Pennsylvania seniors in 1958.[2]

In each of the two studies, a great deal of effort went into adjusting the given IQ's according to the particular test used to obtain the scores. IQ limits for each stanine class were developed, then the distribution of IQ scores of seniors sampled in each study was tabulated. In the St. Louis study, all scores were converted to a common denominator of a "Binet" scale, with mean of 100, standard deviation of 15; then the Binet IQ scores were used to obtain stanine classes. In the study of Pennsylvania high school seniors, more than 2/3 of all seniors had taken either an Otis Test of Mental Ability or a California Test of Mental Maturity, so separate stanine conversions were developed for each test. The conversions in both the St. Louis and Pennsylvania studies apparently were based on the total population, or on the population of high school age people, rather than on a population of high school seniors as such. Tables XVI and XVII show the IQ limits for each stanine class used in each study, and the distribution of sampled seniors in each study. These tables also show comparative distributions of Bucks County seniors IQ scores, computed as follows:

1. Binet comparison regarded each given IQ as if it were already converted to a Binet scale, and unadjusted scores were tabulated accordingly.
2. Pennsylvania comparison tabulated all test scores obtained from variations of the Otis Tests (School Record Data, tests 5, 6, 7, 8) using the Otis IQ intervals, and tabulated all other test scores using the California IQ intervals.

In each comparison, there is a higher proportion of Bucks County seniors in the higher - IQ stanines than the corresponding St. Louis or Pennsylvania high school senior groups.

Capability Groups - Bucks County Seniors

The purposes of the overall project, of which the survey of seniors is only a part, require matching capabilities of seniors with admission requirements of post high school educational institutions. This, in turn, was judged to require a conversion from approximate IQ score to an approximate score on a general college entrance examination. Such a conversion was developed from a rough table of estimated relationships among scores on various measures of scholastic ability (page 38 of reference 5), which gave the following:

College Board SAT Verbal Scores	General IQ Group Test Score
600	130
500	125
400	115
350	108
325	104
275	100

After looking over this table and the range of IQ scores by test shown in Table XVIII, the study team decided to accept IQ scores without adjustment and tabulate such unadjusted scores into stanine classes based on the distribution itself and interpolate between SAT scores to get a conversion table. Table XIX shows the final results of these decisions. Note that the IQ intervals are 1/2 standard deviation in width (based on IQ average of 109, standard deviation of 14), and the final distribution fits the expected distribution (given in Table XIV) very closely. These stanine classes were used as the estimated measure of capability for post high school education.

TABLE XVI

Bucks County Seniors (1966) vs. St. Louis Seniors (1959)

Stanine	Binet IQ Intervals	Distribution of St. Louis Seniors	Distribution of Bucks Co. Seniors
9	Over 127	8.6%	10.7%
8	118-127	11.2%	17.8%
7	110-117	19.1%	20.0%
6	105-109	21.0%	14.6%
5	95-104	20.3%	22.4%
4	90- 94	12.3%	6.3%
3	80- 89	4.9%	6.1%
2	70- 79	2.4%	1.4%
1	Below 70	.2%	.4%

TABLE XVII

Bucks County Seniors (1966) vs. Pennsylvania Seniors (1958)

Stanine	Otis IQ Intervals	Calif. IQ Intervals	Distribution of Pa. Seniors	Distribution of Bucks Co. Seniors
9	Over 121	Over 125	6.6%	15.3%
8	116-121	119-125	9.0%	13.1%
7	110-115	112-118	14.2%	16.6%
6	104-109	105-111	20.1%	19.1%
5	97-103	98-104	22.1%	16.1%
4	91- 96	91- 97	15.0%	10.6%
3	85- 90	84- 90	8.2%	5.4%
2	79- 84	77- 83	3.4%	2.4%
1	Below 79	Below 77	1.4%	1.3%

TABLE XVIII

Bucks County Seniors - Summary of IQ Scores by Test

Test	No. Taking Test	Average	Standard Deviation
1. California Test of Mental Maturity	2112	108.4	15.1
2. Lorge-Thorndike Intelligence Tests	947	113.0	14.2
3. Henmon-Nelson Test of Mental Ability	7	109.6	18.0
4. Henmon-Nelson Test of Mental Ability Revised Edition, Form B	2	112.0	12.7
5. Otis Quick-Scoring Mental Ability Tests Beta	275	110.3	12.1
6. Otis Quick-Scoring Mental Ability Tests Gamma	819	106.8	11.6
7. Otis Quick-Scoring Mental Ability Tests New Edition, Beta	46	112.7	14.2
8. Otis Quick-Scoring Mental Ability Tests New Edition, Gamma	32	108.4	10.9
9. Other	131	108.6	18.9
Overall Totals	4365	109.3	14.3
10. No test score recorded	75	-	-

TABLE XIX

Bucks County Seniors Capability Classes

Stanine	IQ Intervals (unadjusted)	Distribution of Bucks Co. Seniors		Approximate Range of SAT-V Scores
		No.	%	
9	Over 133	195	4.4%	650 and over
8	127-133	329	7.5%	550-649
7	120-126	532	12.0%	450-549
6	113-119	759	17.2%	400-449
5	106-112	847	19.1%	350-399
4	99-105	744	16.9%	300-349
3	92- 98	531	12.1%	250-299
2	85- 91	270	6.1%	200-249
1	Below 85	208	4.7%	Below 200

APPENDIX E

FOLLOW-UP SURVEY OF HIGH SCHOOL SENIORS - BUCKS COUNTY, PENNSYLVANIA

Working Paper Number 6

Prepared for

Bucks County Board of School Directors

By

Government Studies Center

Fels Institute of Local and State Government

University of Pennsylvania

February, 1968

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INTRODUCTION

This report is the sixth in a series of working papers prepared for the Bucks County Board of School Directors to assist in the analysis of post high school educational needs in Bucks County, Pennsylvania. Previous papers included: an estimate of future population growth by school districts, a discussion of the employment-education relationship, an estimate of educational resources in and around Bucks County, a summary of post high school educational needs of high school seniors, and an estimate of educational needs of adults residing in Bucks County.

The Government Studies Center of Fels Institute of Local and State Government of the University of Pennsylvania is serving as consultant to the Bucks County Board of School Directors and has primary responsibility for the overall project. Government Studies Center personnel participating in this portion of the project are John K. Parker, project supervisor; Daniel J. Glanz, systems analyst; and Boyd Z. Palmer, research director and author of this report.

SCOPE

The difficulty of obtaining valid data by asking people to answer survey questions can be partially eased by conducting one or more follow-up surveys on the same people who participated in the original survey. Thus, the follow-up data can provide estimates on the extent to which plans and/or opinions get translated into action.

This report summarizes answers to questions on a follow-up questionnaire sent to a sample of Bucks County high school seniors surveyed originally in April, 1967. (See working paper number 4 - Characteristics of High School Seniors in Bucks County, Pennsylvania), relating them specifically to answers obtained in the previous survey. The primary purpose is to estimate the proportion of seniors going on to post high school education, and determine where they go.

SUMMARY

An estimated 60% of Bucks County seniors in April, '67, were attending some form of post high school education (PHSE) during the last quarter of 1967. About 39% went on to a 4-year institution and another 12% were attending 2 year college credit institutions. This total of 51% attending degree-credit institutions is slightly below the national average of over 53% of high school graduates attending such institutions the year following graduation, but above the Pennsylvania average of 36%.

Over 25% of the seniors went outside the commuting area to attend PHSE institutions; about 14% were attending schools in Bucks County.

These figures are based on responses to a follow-up survey that was intended to be a 20% sample of high school seniors that responded to a questionnaire given in April, '67. Only half the sample (or 477 people) responded to the mailed follow-up questionnaires -- primarily people who did go on into some form of PHSE.

Other data on survey responses are shown in this report; the patterns are not radically different from expected. A major item of interest is that about 60% of the survey respondents attending PHSE listed money or occupational reasons for attendance, and 30 percent indicated a desire for self-improvement or "enjoy learning" as primary reasons for going on.

METHODOLOGY

A. Survey

At the time the senior survey questionnaires were collected and coded in April, 1967, every fifth one was marked to be included in a 20% follow-up sample, and special mailing labels were prepared. A follow-up questionnaire was developed by the Bucks County study staff, which was reviewed by the Advisory Council of the Board of School Directors.

In September, 887 questionnaires were mailed out, and considerable effort (via telephone calls to parental addresses) was expended to produce a good response. Final tabulations used 477 responses, for a return rate of 53.8%; this represented a 10.8% sample of the 4,415 senior responses to the April survey (see Table I). Time and cost considerations prevented making an interview sample of non-respondents to the mailed follow-up questionnaire, but sufficient data was available from the April survey data to permit a general characterization of non-respondents.

Questionnaire answers were key punched into tabulating cards, then merged with data for the same individuals obtained from the April survey, and from cumulative record data. Analysis was based on cross tabulations among all data available.

B. Data Analysis

1. New Classes

Six new classes were created from the answers to the follow-up questionnaire; these new classes formed the basis for the main analyses presented here. A brief description of each new class follows:

(1) Location of PHSE - The questionnaires were hand-coded on question #20, which asks the respondent to print the name of the school or

TABLE I

Responses by Schools, by Sex

Code	Name	Total Mailed	Responses			
			Male	Female	Total	%
1	Palisades Jr. - Sr. High	24	7	11	18	75. 0
2	Quakertown High	49	11	19	30	61. 2
3	Pennridge High	55	16	16	32	58. 2
4	Central Bucks High	79	18	34	52	65. 8
5	New-Hope, Solebury High	10	2	3	5	50. 0
6	Council Rock High	50	12	23	35	70. 0
7	William Tennent High (Centennial)	62	9	19	28	45. 2
8	Neshaminy Sr. High	125	33	29	62	49. 6
9	William Penn High (Pennsbury)	122	21	25	46	37. 7
10	Morrisville High	15	4	5	9	60. 0
11	Woodrow Wilson High	114	25	39	64	56. 1
12	Bristol Boro Sr. High	25	5	5	10	40. 0
13	Bensalem Township High	51	15	17	32	62. 7
14	Bishop Conwell	58	0	25	25	43. 1
15	Bishop Egan	44	27	0	27	61. 4
16	George School	2	1	0	1	50. 0
17	Solebury Private	2	1	0	1	50. 0
	Total	887	207	270	477	53. 8
	Upper Bucks	128	34	46	80	62. 5
	Middle Bucks	203	42	79	121	59. 6
	Lower Bucks	556	131	145	276	49. 6

college he is or will be attending. Codes were assigned as follows:

1. No institution named
2. Institution is in Bucks County
3. Institution is not in Bucks County but is within the commuting area as defined in this study.
4. Institution is outside the commuting area.

(2) Location of Employment - Answers to questions 5 and 6 were combined to give one class as follows:

1. Not working, live in Bucks County
2. Not working, live outside Bucks County
3. Work in Bucks County, live in Bucks County
4. Work in Bucks County, live outside Bucks County
5. Work outside Bucks County, live in Bucks County
6. Work outside Bucks County, live outside Bucks County

(3) PHSE Attendance ("Going") - Answers to question 18 were combined to give:

1. Now attending
2. Will attend within 6 months
3. Will attend after 6 months
4. No plans to attend

(4) Time of Attendance - Answers to question 2 were taken substantially as is, except that "no answers" were included as answer 1 - do not expect to attend.

(5) Type of institution - Answers to question 22 were used to indicate the type of institution being attended as:

1. 4 year degree institution
2. 2 year degree institution
3. 2 year non-degree institution
4. Vocational/Technical or Business/Commercial school
5. Continuing Adult Education
6. None indicated

(6) Subject or Course of Study - Answers to question 22 were used to indicate course of study as:

1. Business
2. Engineering
3. Teacher Education
4. Nursing
5. Medical Tech.
6. Art
7. Music
8. Home Economics
9. Liberal Arts
10. Agricultural
11. Secretarial
12. Trade and Industrial
13. Adult Education
14. Other
15. None Indicated

2. Uses of the Classes

Three of the new classes were deliberately constructed to be as closely analogous as possible with similar classes constructed for the senior survey:

Follow-up		April Survey
PHSE Attendance	vs.	Strength of Expectation
Type of Institution	vs.	Type of Institution
Subject	vs.	Subject

This direct comparison of answers to virtually identical questions at different times gives an indication of the way the follow-up respondents' plans changed over a six-month period.

These and the other new classes are the main bases for the tabulations given in the tables in this report.

C. Characteristics of Non-Response

Table I shows the pattern of responses to the mailed follow-up questionnaire, by school attended by the seniors selected for the sample. Table II gives more detail specifically on those who did not return the questionnaire, using characteristics obtained from the April senior survey data. Those who did not respond tended to be poorly motivated toward PHSE, and in the lower stanine groups. Thus the sample appears to be strongly biased towards those people who are participating in PHSE or are in favor of it. Therefore, all tabulations must be carefully interpreted to avoid over-estimates of PHSE attendance.

TABLE II

Characteristics of Non-Responders

		(477)	(394)	(871)	(45.2%)
				Sample	%
		Response	Non-Resp.	Total	Non-Resp.
Sex	Male	207	199	406	41.9
	Female	270	195	465	49.0
Region	Upper	80	47	127	37.0
	Middle	121	81	202	40.1
	Lower	276	266	542	49.1
Strength of Expectation for PHSE (April, '67)	Accepted	270	118	388	30.4
	Applied	35	18	53	34.0
	Want to go	19	14	33	42.4
	Later	68	119	187	63.6
	No plans	85	125	210	59.5
Desired Area (April, '67)	Within commuting	241	219	460	47.6
	Away	165	76	241	31.5
	Don't know	71	99	170	58.2
Time of Day for PHSE (April, '67)	Full time	311	154	465	33.1
	Part time	75	122	197	61.9
	Don't know	91	118	209	56.5
Type of Institution Desired	4 year	249	111	360	30.8
	2 year deg.	47	39	86	45.4
	2 year non-deg.	42	33	75	44.0
	B/C, V/T	48	82	130	63.1
	Cont. Ed.	7	17	24	70.8
	No plans	84	112	196	57.1
Stanine (IQ range)	9 (134+)	31	7	38	18.4
	8 (127 - 133)	45	23	68	33.8
	7 (120 - 126)	71	40	111	36.0
	6 (113 - 119)	95	67	162	41.4
	5 (106 - 112)	79	77	156	49.4
	4 (99 - 105)	64	69	133	51.9
	3 (92 - 98)	49	58	107	54.2
	2 (85 - 91)	25	32	57	56.1
	1 (84 -)	18	21	39	53.8

RESULTS

A. Characteristics of Respondents Attending PHSE

Table III shows tabulations needed to determine where students are going, what types of institutions they are attending, and what subjects they are taking. Of the 477 responders, 79 (or 16.6%) are attending schools in Bucks County, primarily the 2-year community college. Business, Liberal Arts, and Teacher Education courses are most popular, with Nursing and Engineering courses also getting over 10% of this group.

The 97 students (about 20% of the sample) attending institutions in the commuting area surrounding Bucks County are primarily full time students in 4-year colleges, taking Liberal Arts, Nursing, Teacher Education, and Engineering courses. Over one-fifth are attending various business or vocational trade schools.

The 146 students (about 30% of the sample) attending schools outside the commuting area are almost exclusively going full time to 4-year colleges, with almost one-half taking Liberal Arts courses, and over one-fourth taking Teacher Education courses.

About 60% of the respondents going to PHSE list money or occupational reasons for continuing their education, but another 30% list "self-improvement" or "enjoy learning" as important reasons. Other tabulations (not shown here) indicate that "want to get a job" was listed as an important or extremely important reason for not attending PHSE by 60% of the people who gave no institution. About 32% of the same group regarded "have to support myself" as an important reason for not going on, and 27% listed "cost" as a significant factor. These were the same 3 major reasons given in the senior survey by seniors not planning to go on. As in

TABLE III
Respondents Going to PHSE

		In BC		In BC Area		Out of BC Area		Inst. Not Given		Total	
		No.	%	No.	%	No.	%	No.	%	No.	%
Strength of Expectation For PHSE	Now Attending	25	31.7	32	33.0	45	30.8	2	1.3	104	21.8
	Will Soon	52	65.8	64	66.0	98	67.1	12	7.7	226	47.4
	Later	2	2.5	1	1.0	2	1.4	43	27.7	48	10.1
	No Plans	0	–	0	–	1	.7	98	63.2	99	20.7
Type of Institution Attending	4 Yr.	8	10.1	69	71.1	137	93.8	25	16.1	239	50.1
	2 Yr. Deg.	36	45.6	3	3.1	3	2.0	8	5.2	50	10.5
	2 Yr. Non-Deg.	18	22.8	4	4.1	3	2.0	10	6.4	35	7.3
	B/C, V/T	14	17.7	21	21.7	2	1.4	15	9.7	52	10.9
	Cont. Ed.	3	3.8	0	–	0	–	2	1.3	5	1.1
	No Plans	0	–	0	–	1	.7	95	61.3	96	20.1
Time	Full	67	84.8	89	91.7	139	95.2	18	11.6	313	65.6
	Part	11	13.9	8	8.3	6	4.1	34	21.9	59	12.4
	Don't Know	1	1.3	0	–	1	.7	103	66.5	105	22.0
Subjects Taking	Business	12	15.2	11	11.3	10	6.9	12	7.7	45	9.4
	Engineering	8	10.1	13	13.4	9	6.2	5	3.2	35	7.3
	Teach. Ed.	17	21.5	16	16.5	43	29.4	4	2.6	80	16.8
	Nursing	9	11.4	15	15.5	4	2.7	3	1.9	31	6.5
	Med. Tech.	0	–	1	1.0	2	1.4	1	.7	4	.8
	Art	2	2.5	3	3.1	2	1.4	2	1.3	9	1.9
	Music	2	2.5	1	1.0	2	1.4	1	.7	6	1.3
	Home Ec.	0	–	1	1.0	1	.7	1	.7	3	.6
	Lib. Arts	13	16.5	20	20.6	68	46.6	15	9.7	116	24.3
	Agric.	2	2.5	0	–	1	.7	1	.7	4	.8
	Secretarial	5	6.3	2	2.1	1	.7	3	1.9	11	2.3
	Trade & Ind.	4	5.1	2	2.1	0	–	7	4.5	13	2.7
	Adult & Cont.	1	1.3	0	–	0	–	0	–	1	.2
	Others	4	5.1	12	12.4	2	1.4	4	2.6	22	4.6
	No Plans	0	–	0	–	1	.7	96	61.9	97	20.3
Reasons for Attending PHSE	Not Attending	0	–	0	–	0	–	86	55.5	86	18.0
	Money	9	11.4	9	9.3	1	.7	5	3.2	24	5.0
	Occupation	40	50.6	52	53.6	90	61.6	26	16.8	208	43.6
	Personal Contacts	3	3.8	0	–	2	1.4	3	1.9	8	1.7
	Enjoy Learn.	0	–	6	6.2	5	3.4	1	.6	12	2.5
	Self Improv.	23	29.1	23	23.7	43	29.5	23	14.8	112	23.5
	Friends Do	–	–	–	–	–	–	–	–	–	–
	Social	–	–	–	–	–	–	–	–	–	–
	Athletics	2	2.5	–	–	1	.7	1	.6	4	.8
	Parents	–	–	1	1.0	1	.7	1	.6	3	.6
	Teachers	–	–	–	–	–	–	–	–	–	–
	No Special	1	1.3	4	4.1	–	–	2	1.3	7	1.5
	No Ans.	1	1.3	2	2.1	3	2.0	7	4.5	13	2.7
TOTALS		79	100.0	97	100.0	146	100.0	155	100.0	477	100.0

that survey, it is interesting that the desire for a job, rather than the necessity for one, is the really dominant reason cited, suggesting that cost alone may not be the real determinant.

Other data indicates that about 10 to 15 percent of the respondents going to PHSE still haven't found the last 1 to 20 percent of the finances needed. Almost half of them are counting on part-time jobs for up to 40% of the money needed, with students attending Bucks County schools depending more on this source of funds than students going to schools outside Bucks County. Parental gifts pay all expenses for about one-fourth of responding students now attending PHSE. Scholarships are a minor source, and are mentioned primarily by those attending schools outside the area.

About 10% of seniors not attending PHSE are participating in an on-the-job industrial training program; another 10% is planning to participate, and a third 10% would like to participate.

B. Plans vs. Actual Decisions

The main indicator used to summarize seniors' attitudes about and plans for post high school education was the "strength of expectation" as derived from the April survey responses. We should note in passing that the students' interpretation of the questions used may not have been what we anticipated, but if we accept the classifications at face value, then Table IV may yield some understanding of what the seniors actually did.

Of the 270 responding seniors who had been accepted for PHSE as of April, 1967, about 97% actually went; half of them are now attending schools outside the Bucks County commuting area, and 16% are attending Bucks county institutions.

Of the 35 responding seniors who had applied but had not been accepted as of

April, 1967, 80% are attending, mostly in Bucks County schools, with very few going outside the area. Of the students who had not yet applied (as of April, 1967) but did expect to attend some form of PHSE, about 58% finally did attend, again mostly in Bucks County schools.

Of the 153 responding seniors who had indicated no plans for immediate PHSE, about 19% did finally attend. It is likely that this percentage would be somewhat lower for all seniors in these categories, since a person who did go on would be more likely to respond to a follow-up survey of this type.

Some of these percentages are based on very few cases, so must be regarded as subject to wide variations; however, the patterns and relative magnitude seem reasonable and consistent with other data. The general picture is that the seniors who were not accepted or had not yet applied as of April went to local institutions or gave up for the time being; over one fourth of the 54 responding seniors in these categories either postponed their plans for PHSE or dropped them.

Part B of Table IV gives some additional information on changes of plans with regard to types of institutions desired vs. attended. Plans seemed to shift in all directions, though at least half the seniors stuck to their original choice.

TABLE IV

Comparison of April Survey Responses with Follow-up Responses

A. Earlier "Strength" Class vs. Actual "Going"

	Strength of Expectations for PHSE (April Survey)									
	Accepted		Applied		Expect to		Later		No Plans	
	No.	%	No.	%	No.	%	No.	%	No.	%
Follow-up Status										
Now Attending	88	32.6	10	28.6	2	10.5	4	5.9	0	–
Will soon Attend	174	64.4	18	51.4	9	47.4	16	23.5	9	10.6
Later	5	1.9	3	8.6	2	10.5	29	42.7	9	10.6
No Plans	3	1.1	4	11.4	6	31.6	19	27.9	67	78.8
"Going" Location:										
In Bucks County	44	16.3	15	42.9	9	47.4	8	11.8	3	3.5
In Commuting Area	80	29.9	8	22.9	2	10.5	6	8.8	1	1.2
Outside Area	139	51.5	4	11.4	1	5.3	1	1.5	1	1.2
No Institn. Given	7	2.6	8	22.9	7	36.8	53	77.9	80	94.1
Totals	270	100.0	35	100.0	19	100.0	68	100.0	85	100.0

B. Type of Institution Desired Earlier vs. Type Desired, Follow-up

	Type Desired, (April Survey)											
	4 Yr. Degree		2 Yr. Degree		2 Yr. Non-Deg.		Bus./Com. Voc./Tech.		Cont. Ed.		None Indicated	
Type Desired, Follow-up	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
4 Yr. Degree	213	85.5	8	17.0	4	9.5	4	8.3	0	–	10	11.9
2 Yr. Degree	18	7.2	25	53.2	5	11.9	1	2.1	0	–	1	1.2
2 Yr. Non-Deg.	6	2.4	4	8.5	19	45.2	2	4.2	1	14.3	3	3.6
Bus/Com., Voc./Tech.	6	2.4	6	12.8	6	14.3	28	58.3	1	14.3	5	6.0
Cont. Ed.	1	.4	0	–	0	–	1	2.1	2	28.6	1	1.2
None Indicated	5	2.0	4	8.5	8	19.0	12	25.0	3	42.8	64	76.2
Total	249	100.0	47	100.0	42	100.0	48	100.0	7	100.0	84	100.0

ESTIMATES FOR EDUCATIONAL POLICY PLANNING

There are three questions we want to ask of the follow-up survey, to help determine guidelines for developing post high school educational opportunities for Bucks County high school seniors and adult residents. The questions are: 1) What proportion of seniors attend PHSE the next year? 2) What types of institutions do they attend if they do go on? 3) Where are the institutions located with respect to Bucks County? These questions are considered separately below.

1. What proportion of seniors attend all forms of PHSE?

Because some questionnaires were sent out in early September, before most colleges had enrolled the freshman class, the total of "now attending," plus "will attend within 6 months," (based on question 18), was used to identify those respondents who actually participated in some form of post high school education. Since there were 330 of such people out of a total sample of 477, an initial estimate of 69.2% seniors going on to PHSE can be obtained. However, this is certainly too high because of the way the sample over-represents people interested in PHSE, and because some of the people who said they will attend within 6 months will actually not attend. Part A of Table V develops a better estimate, by obtaining sample estimates of percent "going" for each of the 5 strength classes, then multiplying these proportions by the proportion of all seniors in each class in April, 1967. Thus, .970 x .441 in the "Accepted" strength, gives .428 as the estimated proportion of all seniors who will be accepted in April, and will actually go somewhere in September. By adding all these proportions, we obtain the closer estimate of 59.6% of all seniors who will go into some form of PHSE. This figure still may be too high, because the last two

TABLE V

Estimating Total Seniors in PHSE, by Area and by Type of Institution

A. Finding proportion "Going," by strength of Expectation (April Survey)

Strength	Percent of All Seniors (April) *	Sample Total	Sample - People Attending and Plan to Attend: No.	Sample - People Attending and Plan to Attend: % of Class Total	Proportion Going, by Strength
1. Accepted	44.1	270	262	97.0	.428
2. Applied	7.4	35	28	80.0	.059
3. Expect to go	4.0	19	11	57.9	.023
4. Later	20.4	68	20	29.4	.060
5. No plans	24.1	85	9	10.6	.026
		477	330	69.2	.596

*From working paper #4 on High School Seniors

B. Finding proportion "Going," by type of institution

Type of Instruction	Sample - People Enrolled or Plan to Enroll: No.	Sample - People Enrolled or Plan to Enroll: %	Proportion Going, by Type
1. 4-year degree	215	65.2	.389
2. 2-year degree	44	13.3	.079
3. 2-year non-degree	25	7.6	.045
4. B/C, V/T	41	12.4	.074
5. Continuing education	3	.9	.005
6. None indicated	2	.6	.004
	330	100.0	.596

C. Finding proportion "Going," by location of school

Location	Sample - People Enrolled or Plan to Enroll: No.	Sample - People Enrolled or Plan to Enroll: %	Proportion Going, by Location
In Bucks County	77	23.3	.139
In Commuting Area	96	29.1	.173
Outside Area	143	43.3	.258
Not known	14	4.3	.026
	330	100.0	.596

strength classes were under-represented in the sample, as explained on page 8 but it can be accepted at least as an upper limit.

2. What types of institutions do they attend?

Part B of Table V shows proportions going to different types of PHSE institutions. By multiplying each percentage by the estimated overall proportion going of .596, we obtain estimates of proportion of all seniors going to each form of PHSE. For example, about 38.9% of all Bucks County seniors will go directly on to a 4-year college or university, and about 7.4% will go into some type of business, commercial, vocational, or technical program.

3. Where are the institutions located?

Part C of Table V shows proportions going to schools in Bucks County, in the commuting area surrounding the county, and outside the area. Again, by multiplying each percent by the estimated overall proportion going of .596, we obtain estimates of proportions of all seniors who will go to schools in each area. For example, about 25.8% of all seniors will go to schools outside the county and its commuting area; about 13.9% will use county post high school educational resources.

Two comments seem appropriate here. First, it is likely that college-going rates are different for different schools in the county, but this analysis made no attempt to estimate these proportions even by region. A larger, more representative sample should be used for this task.

Second, the proportions seem low to the study staff, in comparison with national averages, particularly since they really should be regarded as maximum values. National retention rates published by the United States Office of Education indicate that over 53% of all United States high school graduates became "First time college students" in 1966; this figure does not include enrollment in most business, commercial, and other vocational trade schools. A comparable figure for Bucks County in 1967 would be the total of 4-year plus 2-year degree and 2-year non-degree, or 51. 3%. A county like Bucks - suburban, high income, well educated residents - would be expected to be above the national average, not below. The rate, however, is well above the average for Pennsylvania in 1965, when only 36% of high school graduates entered college.

APPENDIX A

Follow-Up Survey Questionnaire

BUCKS COUNTY STUDY OF POST HIGH SCHOOL

EDUCATION NEEDS 1968-1980

Follow-Up High School Senior Questionnaire

DO NOT WRITE IN THIS SPACE

ICN 2 7

SIDN ☐☐☐☐☐☐

SDCN ☐☐☐

HSCN ☐☐☐☐

Please PRINT your name and home address below:

Last Name ________ First Name ________ Mid.In. ____

Home Address ________ City ________

Today's Date: ☐ ☐ 6 7

Mo. Da. Yr.

Total 477

Check One:

☐ 1 Male 207

☐ 2 Female 270

DIRECTIONS:

Please be sure to answer every question below as sincerely and as thoughtfully as you can. Most of the questions can be answered by just marking an X in the box to the left of the answer you choose. Do not skip any questions. Answer every question. Mark only one answer to each question.

PART I. GENERAL INFORMATION

1. What is the highest level of education you expect to achieve during your life?

		No.	%
☐ 1	Less than 12 years	1	0.2
☐ 2	High school or vocational-technical high school graduate	93	19.5
☐ 3	Vocational-technical school graduate beyond 12th grade	43	9.0
☐ 4	Commercial or business school graduate beyond 12th grade	21	4.4
☐ 5	Community or junior college or two-year university extension center graduate	39	8.18
☐ 6	Bachelor's degree	121	25.4
☐ 7	Master's degree	110	23.1
☐ 8	Doctor's degree	44	9.2
		*8	1.7

2. Are you now on active duty in the military service?

☐ 1 Yes 9 1.9 ☐ 2 No 465 97.5 *3 0.6

(Continue to next page)

* No Answer

ICN
2 7

3. Do you soon expect to be on active duty in the military service?

☐ 1 Yes ☐ 2 No

30 0.3 431 90.4 *16 3.4

PART II. OCCUPATION AND EDUCATION INFORMATION

---

4. If you are now employed, what is your occupation group? Mark only one from 01 to 12. If you are in the military service, unemployed, in school, mark X in Box #12.

4 0.8 ☐ 01 Housewife

68 14.3 ☐ 02 Clerical - (Typical occupations: bookkeeper, cashier, office machine operators, general clerks, stock clerks, stenographers, typist clerks, etc.)

These occupations are concerned with preparing, transcribing, transferring, systematizing or preserving written communications and records. The duties of most occupations in this group are performed by mental and manual processes, but also may include the operation of such devices as bookkeeping machines or calculators.

29 6.1 ☐ 03 Service Worker - (Typical occupations: hotel maids, housekeepers for hotels and institutions, chefs and cooks, waiters, guards and watchmen, firemen and policemen, charwomen and cleaners, janitors, porters, elevator operators, etc.)

This group includes those occupations concerned with the performance of services for persons that require either direct contact or close association with the individual; occupations concerned with the protection of individuals or of public or private property; occupations related to the cleaning of the interior and equipment of buildings; and occupations concerned with the moving or carrying of equipment, baggage and other articles.

2 0.4 ☐ 04 Managerial - (Typical occupations: foremen, executives, supervisors, self-employed, etc.)

These occupations are concerned primarily with responsible policy-making, planning, supervising, coordinating or guiding the work activities of others, usually through intermediate supervisors. Typical occupations: managers or presidents of enterprises; superintendents of construction projects; and, because of their official capacities, treasurers and executive secretaries. All supervisory foremen who spend more than 80 per cent of their time on supervisorial duties are also included in this group. "Working foremen who spend most of their time in operative capacities are included in the appropriate group according to the type of work done.

6 1.3 ☐ 05 Professional - (Typical occupations: mechanical, civil, or electrical engineer, lawyer, physicist, actuary, teacher, doctor, etc.)

These occupations require a high degree of independent mental activity by the worker and are concerned with theoretical and practical aspects of complex fields of endeavor. Most occupations in the group require extensive and comprehensive academic courses of study or experience of a scope and character to provide the necessary background.

(Question 4 continued next page)

* No Answer

ICN 2 7

Question 4 (Cont'd.)

☐ 06 **Skilled Worker** - (Typical occupations: bakers, tailors, carpenters, typesetters, plumbers, all-round machinists, toolmakers, welders, electricians, mechanics, etc.)

24 5.0

These craft and manual occupations require predominatly a thorough and comprehensive knowledge of processes involved in the work, the exercise of independent judgment, usually a high degree of manual dexterity and, in some occupations, extensive responsibility for valuable products or equipment. Workers in these occupations usually become qualified by serving apprenticeships or completing extensive training periods. Foremen of manual and craft workers who spend more than 20 per cent of their time in actual operations are included within the occupations of the workers.

☐ 07 **Sales Person** - (Typical occupations: salesclerks, retail and wholesale salesmen, etc.)

19 4.0

These occupations are concerned with the sale of commodities, investments, real estate and services. Also included are some occupations closely identified with sales transactions. Typical occupations: salesclerks;. salespersons of wearing apparel, household goods, automotive equipment, printing, publishing and advertising salesmen; precision instruments salesmen; communications equipment salesmen. Related occupations include demonstrators and comparison shoppers. Sales personnel who require a great deal of technical or professional knowledge of college level don't belong here. They come under semi-professional or professional employees depending on the educational qualifications required.

☐ 08 **General Worker** - (Typical occupations: wheelbarrow man; laborer, any industry; assembler helper; flagman; bag tier, etc.)

42 8.8

These occupations involve the performance of simple duties that may be learned quickly and that require the exercise of little or no independent judgment, though a familiarity with the occupational environment may be necessary or desirable. No experience in the occupation itself is required for those seeking employment.

☐ 09 **Administrative** - (Typical occupations: administrative assistant, time study engineers, cost estimators, office manager, etc.)

1 0.2

These occupations are primarily concerned with the performance of office or nonmanual field work directly related to management policies or general business operations. Administrative employees customarily exercise discretion and independent judgment and work under general supervision carrying out special assignments and tasks. If special professional or semi-professional education is required the appropriate box for these groups of occupations should be marked.

(Question 4 continued next page)

ICN
2 7

Question 4 (Cont'd.)

☐ 10 **Semi-Skilled Worker** - (Typical occupations: assembler of equipment, machine operator, coil winder, routeman, truck driver, etc.)
13 2.7

These occupations are characterized by one or more of the following requirements: the exercise of manipulation ability of a high order, but limited to a well-defined work routine; major reliance upon materials or products; judgment limited by its application to a narrow field or by having important decisions made by others. These occupations may require the performance of a limited part of a craft or skilled occupation.

☐ 11 **Semi-Professional** - (Typical occupations: laboratory technicians and assistants, X-ray technicians, draftsmen, surveyors, electronic technicians, nurses, etc.)
13 2.7

These occupations require rather extensive education or experience or a combination of both for the proper performance of the work. The fields of endeavor of the semi-professional or technical worker do not usually require as broad a background or as much initiative and judgment as the professional occupations in dealing with complicated situations. The occupations are more typically confined to narrower fields of activity than the professional occupations and are most often concerned with the technical or mechanical aspects of broad, theoretical fields.

☐ 12 **Other** - (Military service, retired, unemployed, etc.)
233 48.9 *23 4.8

---

5. Is your place of employment located within or outside Bucks County?

☐ 1	This question doesn't apply to me.	226	47.4
☐ 2	Within Bucks County	147	30.8
☐ 3	Outside Bucks County	65	13.6
		*39	8.2

---

6. Is your present living address within or outside Bucks County?

☐ 1	Within Bucks County	420	88.1
☐ 2	Outside Bucks County	34	7.1
		*23	4.8

(Continue to next page)

* No Answer

ICN
2 7

QUESTION 7-17

How important to you is each of the following as a reason for your not taking any additional education this year? Be sure you respond to each reason.

7. Attending school or college after high school would not help me to do the things in which I am most interested.

☐	1	Doesn't apply to me	327	68.6	☐	4	Important	38	8.0
☐	2	No importance	26	5.5	☐	5	Extremely important	16	3.4
☐	3	Minor importance	54	11.3				*16	3.4

*** *** ***

8. I want to get a job and start earning a living as soon as possible.

☐	1	Doesn't apply to me	301	62.1	☐	4	Important	71	14.9
☐	2	No importance	16	3.4	☐	5	Extremely important	39	8.2
☐	3	Minor importance	37	7.8				*13	2.7

*** *** ***

9. I have to start earning a living in order to support myself.

☐	1	Doesn't apply to me	330	69.2	☐	4	Important	45	9.4
☐	2	No importance	26	5.5	☐	5	Extremely important	12	2.5
☐	3	Minor importance	51	10.7				*13	2.7

*** *** ***

10. It would cost more than my parents can afford.

☐	1	Doesn't apply to me	321	67.3	☐	4	Important	44	9.2
☐	2	No importance	41	8.6	☐	5	Extremely important	16	3.4
☐	3	Minor importance	41	8.6				*14	2.9

*** *** ***

11. I would rather get married.

☐	1	Doesn't apply to me	351	73.6	☐	4	Important	19	4.0
☐	2	No importance	45	9.4	☐	5	Extremely important	8	1.7
☐	3	Minor importance	41	8.6				*13	2.7

*** *** ***

* No Answer

(Continue to next page)

ICN
2 7

12. My high school grades are too low.

☐ 1 Doesn't apply to me	344	72.1	☐ 4 Important	23	4.8
☐ 2 No importance	37	7.8	☐ 5 Extremely important	7	1.5
☐ 3 Minor importance	50	10.5		*16	3.4

*** *** ***

13. I don't like to study.

☐ 1 Doesn't apply to me	341	71.5	☐ 4 Important	26	5.5
☐ 2 No importance	41	8.6	☐ 5 Extremely important	12	2.5
☐ 3 Minor importance	41	8.6		*16	3.4

*** *** ***

14. I don't think I have the ability.

☐ 1 Doesn't apply to me	361	75.7	☐ 4 Important	15	3.1
☐ 2 No importance	46	8.6	☐ 5 Extremely important	5	1.1
☐ 3 Minor importance	34	7.1		*16	3.4

*** *** ***

15. My parents or guardians do not want me to go.

☐ 1 Doesn't apply to me	406	85.1	☐ 4 Important	1	0.2
☐ 2 No importance	42	8.8	☐ 5 Extremely important	4	0.8
☐ 3 Minor importance	8	1.7		*16	3.4

*** *** ***

16. Most of my friends will not go to school or college after high school.

☐ 1 Doesn't apply to me	355	74.4	☐ 4 Important	7	1.5
☐ 2 No importance	76	15.9	☐ 5 Extremely important	3	0.6
☐ 3 Minor importance	20	4.2		*16	3.4

*** *** ***

17. I probably could not use additional education on the job.

☐ 1 Doesn't apply to me	366	76.7	☐ 4 Important	17	3.6
☐ 2 No importance	46	9.6	☐ 5 Extremely important	8	1.7
☐ 3 Minor importance	24	5.0		*16	3.4

*** *** ***

(Continue to next page)

* No Answer

ICN
2 7

18. Which one of the following statements most closely describes your school or college plans?

☐	1	I don't plan to attend school or college.	91	19.1
☐	2	I am now attending school or college.	104	21.8
☐	3	I will be attending school or college within one month.	193	40.5
☐	4	I will be attending school or college from two to six months from now.	31	6.5
☐	5	I will be attending school or college more than six months from now.	48	10.1
			*10	2.0

19. What type of school or college are you now attending or will you shortly attend?

☐	1	I don't expect to attend school or college.	91	19.1
☐	2	Vocational-technical school beyond 12th grade	60	12.6
☐	3	Business or commercial school beyond 12th grade	14	2.9
☐	4	Community or junior college or two-year university extension center	88	18.5
☐	5	Four-year college or university	209	43.8
			*15	3.2

20. Are you now attending or will you shortly attend a school or college?

☐	1	I am now attending or will shortly attend a school or college.	308	64.6

The name of the institution and the city, state or country, in which it is located, is PRINTED below.

Name of Institution:
City:
State or Country:

☐	2	I have not applied for admission to a school or college.	127	26.6
☐	3	I have applied for admission to a school or college but I have not been accepted.	10	2.1
			*32	6.5

21. If you are attending or will shortly attend a school or college, are you attending or will you attend part-time or full time?

☐	1	I do not expect to attend a school or college.	92	19.3
☐	2	Part-time	59	12.4
☐	3	Full-time	313	65.6
			*13	2.7

(Continue to next page)

---

* No Answer

22. Which one of the following programs are you now attending or will you shortly attend? Mark only one from 01 to 50.

18.5 ☐ 01 I don't plan to take additional education.

FOUR-YEAR COLLEGE OR UNIVERSITY PROGRAM

5.5 ☐	02	Business	33	6.8 ☐	10	Liberal arts (Science related-physical and natural sciences)
3.1 ☐	03	Engineering	45	9.4 ☐	11	Liberal arts (Non-science--pre-law, pre-medicine, pre-theology, literature, etc.)
13.4 ☐	04	Teacher education				
4.2 ☐	05	Nursing (RN and/or degree)	3	0.6 ☐	12	Agriculture
0.6 ☐	06	Medical technology	1	0.2 ☐	13	Textiles(Design, engineering or chemistry)
1.1 ☐	07	Art				
0.6 ☐	08	Music	18	3.8 ☐	14	Other programs Identify:________________
0.6 ☐	09	Home economics				

COMMUNITY OR JUNIOR COLLEGE OR TWO-YEAR UNIVERSITY EXTENSION CENTER

Programs Allowing Transfer to Four-Year Colleges or Universities				Programs Least Likely to Allow for Transfer to Four-Year Colleges or Universities		
2.1 ☐	15	Liberal arts (Non-science)	2	0.4 ☐	25	Practical nursing
1.3 ☐	16	Liberal arts (Science related)	1	0.2 ☐	26	Medical or dental assistant
3.4 ☐	17	Teacher education	4	0.8 ☐	27	Electrical engineering technology
0.2 ☐	18	Medical technology	0	0.0 ☐	28	Laboratory or engineering technology
0.4 ☐	19	Basic engineering	3	0.6 ☐	29	Data processing technology
1.1 ☐	20	Business management	3	0.6 ☐	30	Business administration
0.6 ☐	21	Art	7	1.5 ☐	31	Retail merchandising
0.6 ☐	22	Music	11	2.3 ☐	32	Secretarial (All levels)
0.0 ☐	23	Home economics	4	0.8 ☐	33	Other programs Identify:________________
0.8 ☐	24	Other programs				

(Question 22 continued next page)

ICN
2 7

Question 22 (Cont'd.)

VOCATIONAL OR TECHNICAL PROGRAMS BEYOND 12th GRADE
(Length of programs will vary)

☐	34	Trade and industrial programs (Carpentry and other trades, machine operators, auto mechanics, etc.)	13	2
☐	35	Home economics	0	0
☐	36	Distributive education programs (Sales, merchandising and other programs relating to distribution of goods and services.)	1	0
☐	37	Agriculture (Horticulture, floriculture, etc.)	1	0
☐	38	Technical programs (Laboratory technician, engineering technology, data processing technology and related technical specializations.)	10	2
☐	39	Health programs (Practical nursing and other programs for support of the health professions.)	8	1
☐	40	Other programs; Identify:________________________	18	3

CONTINUING EDUCATION PROGRAMS
(Not for college credit--these programs are usually given in the evenings at university extension centers and local high schools)

☐	41	Business management	2	0.4
☐	42	Accounting	1	0.2
☐	43	Electronic technology	1	0.2
☐	44	Engineering technology	0	0.0
☐	45	Special seminar programs of interest to the community	0	0.0
☐	46	General adult education programs (Art, hobbies, etc.)	0	0
☐	47	Real estate management	0	0
☐	48	Basic adult education (Reading, writing and arithmetic)	0	0
☐	49	Citizenship training	0	0
☐	50	High school completion programs	1	0

---

*9 2

(Continue to next page)

* No Answer

2	7

23. What is the most important reason you are taking or will be taking additional education? Mark only one from 01 to 12.

☐	01	I am not taking a post high school education program.	86	18.0
☐	02	People who have post high school education make more money.	24	5.0
☐	03	The occupation I want requires post high school education.	208	43.6
☐	04	To make good personal contacts for business or an occupation	8	1.7
☐	05	Because I enjoy learning.	12	2.5
☐	06	For personal interest or self-improvement	112	23.5
☐	07	Because most of my friends do	0	0.0
☐	08	For social reasons	0	0.0
☐	09	To go into intercollegiate athletics	4	0.8
☐	10	Because my parents want me to	3	0.6
☐	11	Because my teachers want me to	0	0.0
☐	12	No special reason	7	1.5
			*13	2.7

---

24. Are you now participating or will you shortly participate in a training program in business or industry?

1	I am not participating nor will I shortly participate.	363	76.1
2	I am now participating.	32	6.7
3	I am planning to participate.	32	6.7
4	I am not now participating but I would like to participate.	25	5.24
		*25	5.24

(Continue to next page)

* No Answer

ICN

27

QUESTIONS 25-31

Of the total amount of money you need for your first year at your chosen school or college, what per cent do you expect to get from one or more of the following sources? If you are not taking additional education mark X in Column #1 opposite each source of funds or question. If you are taking additional education choose the closest answer and mark X in the appropriate column. Be sure you respond to each source or question.

	Doesn't apply to me or not a source	Per cent					
		1-19%	20-39%	40-59%	60-79%	80-100%	
	1	2	3	4	5	6	No Answer
25. Loans from or through institutions I expect to attend.	339 71.1	20 4.2	7 1.5	4 0.8	1 0.2	2 0.4	104 21.8
26. Loans from family, friends and/or other sources (Bank, credit union, etc.)	291 61.0	16 3.4	18 3.8	14 2.9	12 2.5	19 4.0	107 22.4
27. Scholarships and/or grants	251 52.6	29 6.1	44 9.2	29 6.1	14 2.9	13 2.7	97 20.3
28. Parents, guardian and/or relatives (Gift or legacy)	168 35.2	39 8.2	34 7.1	36 7.6	29 6.1	91 19.1	80 16.8
29. Savings accumulated before entering school or college.	200 41.9	80 16.8	33 6.9	27 5.7	12 2.5	22 4.6	103 21.6
30. Part-time or summer jobs while attending school or college	203 42.6	105 22.0	41 8.6	19 4.0	4 0.9	15 3.1	90 19.0
31. After all of the above sources are combined what percentage will you still need from some other source?	316 66.3	34 7.1	11 2.3	4 0.8	2 0.4	3 0.6	107 22.4
	1	2	3	4	5	6	

NOTE:

Does the total per cent of money you need equal about 100%

(Continue to next page)

ICN

2	7

32. Nursing programs:

61 5.7 ☐ 1 I am not attending a nursing program.

If you are now attending or will shortly attend a nursing program please mark the appropriate box.

19 4.0 ☐ 2 A three-year diploma program based in a hospital school of nursing. (R.N.)

1 0.2 ☐ 3 A two-year junior or community college program leading to the Associate of Science degree. (R.N.)

3 0.6 ☐ 4 A four-year college program leading to the Bachelor of Science in Nursing degree. (R.N.)

10 2.1 ☐ 5 A licensed practical nurse - this course is one year in duration, is approved by the Pennsylvania State Board of Nurse Examiners and qualifies you to write the examination for a Licensed Practical Nurse in Pennsylvania.

83 17.4

---

33. Did you have any difficulty with any of the questions in the questionnaire?

☐ 1 Yes ☐ 2 No

Which question(s), if any, were difficult to answer. Identify: ____________________

____

Place any comments you may have here: ____________________

____

____

____

____

____

(STOP)

* No Answer

Appendix A - Supplement

New Classes

	No.	%
1. Location of PHSE		
(1) No mention	155	32.5
(2) Within Bucks County	79	16.5
(3) Within the Bucks County Area	97	20.3
(4) Outside the Bucks County Area	146	30.6
2. Location and Employer Location		
(1) Live in Bucks County, not employed	238	49.9
(2) Live outside Bucks County, not employed	27	5.7
(3) Live in Bucks County, employed in Bucks County	147	30.8
(4) Live outside Bucks County, employed in Bucks County	0	0.0
(5) Live in Bucks County, employed outside Bucks County	58	12.2
(6) Live outside Bucks County, employed outside Bucks County	7	1.5
3. Strength of Expectation for PHSE		
(1) Now attending	104	21.8
(2) Will be soon attending	226	47.4
(3) Will be later	48	10.1
(4) No Plans	99	20.8
4. Time, Day Desired		
(1) Not	105	20.0
(2) Part-time	59	12.4
(3) Full-time	313	65.6
5. Type of Institution Desired		
(1) 4 Year Degree	239	50.1
(2) 2 Year Degree	50	10.5
(3) 2 Year Non-Degree	35	7.3
(4) Voc/Tech, Bus/Commercial	52	10.9
(5) Continuing Education	2	1.1
(6) None Indicated	96	20.1

	No.	%
6. Subject Desired		
(1) Business	45	9.4
(2) Engineering	35	7.3
(3) Teacher Education	80	16.8
(4) Nursing	31	6.5
(5) Medical Technology	4	0.8
(6) Art	9	1.9
(7) Music	6	1.3
(8) Home Economics	3	0.6
(9) Liberal Arts	116	24.3
(10) Agriculture	4	0.8
(11) Secretarial	11	2.3
(12) Trade and Industrial	13	2.7
(13) Adult and Continuing Education	1	0.2
(14) All Other	22	4.6
(15) None Indicated	97	20.3

APPENDIX F

EDUCATIONAL NEEDS OF ADULTS
RESIDING IN
BUCKS COUNTY, PENNSYLVANIA

Working Paper Number 5

Prepared for
Bucks County Board of School Directors

By

Government Studies Center

Fels Institute of Local and State Government

University of Pennsylvania

January, 1968

Revised February, 1968

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Government Studies Center
Fels Institute - U. of Pa.

INTRODUCTION

This report on adult educational plans is the fifth in a series of working papers prepared for the Bucks County Board of School Directors to assist in the analysis of post high school educational needs. Previous papers included: an estimate of future population growth by school districts, a discussion of the employment-education relationship, an estimate of educational resources in and around Bucks County, and a summary of the post high school educational needs of high school seniors. These papers will be used in the generation and evaluation of alternative methods for meeting unmet needs.

The Government Studies Center of Fels Institute of Local and State Government of the University of Pennsylvania is serving as consultant to the Bucks County Board of School Directors and has primary responsibility for the overall project. Government Studies Center personnel participating in this portion of the project are John K. Parker, project supervisor; Daniel J. Glanz, system analyst; Boyd Z. Palmer, research director; and Gail Ornstein, author of this report.

SCOPE

A post high school educational system must be designed to fulfill the needs of two groups of residents: graduating high school seniors who plan to continue directly from high school to post high school education (PHSE), and the adult population as a whole. Both of these groups make demands on the higher education system. In order to ascertain the specific educational demands of Bucks County adults, and the extent to which they are similar to or different from those of high school seniors, a questionnaire based on research questions posed during the design phase of the overall project (See Appendix A) was administered to a sample of adults. This working paper summarizes responses to that questionnaire relating them specifically to the research questions.

The report focuses primarily on adult educational needs: the number of adults enrolled and planning to enroll in a program or course; the types of courses and degree programs which they want; their reasons for enrolling PHSE: and the amount of money adults are willing to spend for additional education. It also tabulates the reasons adults give for not planning to take additional courses. These educational variables are then analyzed in terms of the age, occupation, and educational background of the respondents.

SUMMARY

The adult survey represents approximately a 2% sample of the Bucks County adult population not presently enrolled in high school. The sample probably over-represents Middle Bucks, people with some PHSE already, and younger age groups; it under-represents Lower Bucks, people with little or no PHSE, and older age groups.

Less than 5% of the sample were currently enrolled in post high school education; and only about 5% more said that they planned to enroll within a year. Many of those currently enrolled were younger, with no real occupation - probably upper class college students or graduate students.

Like the high school seniors surveyed who planned to continue, the greatest number of adults who were enrolled or planned to enroll in PHSE were interested in four year programs leading to a Bachelor's Degree. Fewer adults than seniors were interested in a two year degree program although a greater proportion of adults than seniors wanted commercial-business or vocational-technical programs. Adults were mostly interested in attending classes at night, part-time, while the seniors were more interested in attending classes full-time during the day.

The amount of money adults were willing to spend for PHSE varied: the number who estimated that tuition, books, and fees would cost under $200 a year is about equal to the number who estimated it would be over $1000.

Reasons for enrolling in post high school education given by men were usually job-connected, while those given by woman were personal. Job demands, family obligations, cost of additional education and dislike of studying were the reasons given most frequently by those who did not plan to enroll for PHSE.

The sample results indicate that as adults get older, a greater proportion thinks about enrolling for PHSE, but very few actually do enroll. These older "may enroll sometime" adults usually cite cost, and "courses desired are not offered" as important reasons for not enrolling. A large potential enrollment apparently exists. In addition the data shows that the more education an adult already has, the more likely he is to make definite plans to take even more.

A very rough estimate of the total Bucks County adult interest in PHSE indicates a possible maximum of 8800 adults already enrolled, 12,208 adults with definite plans to enroll, and 76,980 adults who "may enroll sometime."

METHODOLOGY

A. Survey Procedures

A punched card "Bucks County Real Estate Master File" from the Tax Office was used to draw a 5% sample of land parcels that were coded Residential, Agricultural, Trailer, or Exempt, and that contained a building assessment greater than zero. The land parcels included in the sample (selected by systematic sampling - first parcel chosen by random number from 1 to 20 and every 20th qualifying parcel from then on) were located on school census maps which showed roads, blocks, and parcel boundaries but not dwelling units or addresses. A group of parcel numbers was assigned to each interviewer (generally the same people who conduct the school census) who then had to visit each sample parcel.

Two forms (other than maps and other locational data) were given to the interviewers; the first form (DU) requested information about the parcel itself - how many dwelling units, how many adults per sampled dwelling unit, how many responses, and reasons for non-response. The second form was the questionnaire, one copy to be filled out by each adult in a sampled dwelling unit.

Several "decision rules" were also included in the interviewer instructions:

1. If a parcel contained no inhabited dwelling units, choose an adjoining parcel that did.
2. If more than one dwelling unit (apartment house) was on the parcel, choose one unit for each 20 units on the parcel. In practice, the interviewers simply rang doorbells in the apartments until they got a response, and that dwelling unit became the sampled one.
3. For each responding unit, try to get the adults at home to fill out questionnaires for themselves *and* for *others not then at home*. In practice, the interviewers left several blank questionnaires and came back the next day, or else got a completed questionnaire only from the adults at home.
4. If no one was at home, try once more on another day. If still no response, indicate same on the DU form and stop calling. In practice, interviewers went back many times, and if still no response they frequently substituted a near-by dwelling unit.
5. If the person at home refused to cooperate, indicate this on the DU form, estimate number of adults in the D.U., and stop calling.

In practice, many interviewers substituted near-by dwelling units rather than record a refusal, but total number of refusals was still very high."

Interviewers were to record address on the DU form for call-back purposes, and record an identifying code number (ending in A) for the DU; identity numbers for adults were to be the same DU number but ending in B, C, D, etc. Also, the interviewers were to record parcel identification numbers, a school district code number, and their own "enumerators" number. Their coding was not checked prior to keypunching, so mistakes or omissions on DU and locations were incorporated into the data. These errors do not significantly affect the results of the survey.

Data from DU forms and completed questionnaires were keypunched on cards and transferred to magnetic tape; analysis consisted of computer tabulation of answers, creation of new classes, and several cross-tabulations based on the new classes.

It should be noted that the land parcel file was used only because a complete list of dwelling units or individual adults was not available. The decision to ask every adult in the dwelling unit to fill out a questionnaire was dictated by time and cost constraints rather than by considerations of statistical reliability or accuracy.

It is very costly to sample by individual and try to locate specific individuals - it is much easier and cheaper to sample households (or dwelling units). However, "households" don't enroll in post high school education - individuals do. Hence the attempt to convert a "dwelling unit" sample into an "individuals" sample by asking all adults per DU to fill out a questionnaire. Other methods should be explored in the next survey.

B. Data Analysis

1. New Classes

Ten new data classes were created from the answers to the survey questionnaire. These new classes were cross-tabulated with each other and with the other data to generate the tables shown in this report. A brief description of each new class follows:

a. Strength of Expectation for Post High School Education (PHSE). Answers to survey question 23 were used to place each adult in one of four categories:

1) Presently enrolled in a course or program
2) Intend to enroll in a course or program within the next 12 months.
3) May enroll in a course or program after 12 months.
4) No plans for further education.

b. Cost of PHSE. Answers to question 27 asking for the estimated cost of tuition, fees and books for one year were placed in the following categories:

1) Less than $200
2) $200-$399
3) $400-$599
4) $ 600-$799
5) $ 800-$999
6) $1000 and over

c. Cost - Model. A three category version of the above was constructed which included.

1) Less than $400 (including those not planning further education)
2) $400-$999
3) $1000 and above.

d. Time Desired or Allocated for PHSE. Answers to quesion 18 were placed in the following categories:

1) Night - Part-Time
2) Night - Full-Time
3) Day - Part-Time
4) Day - Full-Time
5) Weekends - Part-Time
6) Weekends - Full-Time
7) None Indicated

e. Time Desired - Model. A two category version of the above was constructed including:

1) Day
2) Night and Weekend

f. Type of Institution Desired or Enrolled In. Answers to question 22 were placed in the following categories:

1) 4 year-degree
2) 2 year-degree

3) 2 year non-degree
4) Vocational-Technical, Business-Commercial
5) Continuing Education
6) None Indicated

g. Type of Institution Model. A three-category version of the above was formed.

1) 4 year-degree
2) 2 year-degree - includes Community or Junior College and university extension programs.
3) Other - includes categories 3, 4, 5, and 6 above.

h. Subject Desired. Answers to question 22 were used to indicate each adult's interest in a subject area or program of study. The subject categories are:

1) Business
2) Engineering
3) Teacher Education
4) Nursing
5) Medical Tech.
6) Art
7) Music
8) Home Economics
9) Liberal Arts
10) Agriculture
11) Secretarial
12) Trade and Industrial
13) Adult and Continuing Education
14) All Other
15) None Indicated

Note that two separate data classes were formed from question #22 - one for type of institution, one for subject. This was done to permit allocation of adults to different institution types in the computer model part of the study.

i. Years of Education - Answers to survey question 5 were used to cateogrize each adult on the basis of the number of years of formal education. The categories include:

1) Grades 1-6
2) Grades 7, 8, 9
3) Grades 10 or 11
4) Grade 12
5) Vocational or technical school graduate beyond 12th grade
6) Commercial or business school graduate beyond 12th grade
7) Graduate of a two year junior or community college or university extension program
8) One year of college
9) Two years of college
10) Three years of college
11) Bachelor's Degree
12 Master's Degree (one or two years beyond Bachelor's level)
13) Doctor's Degree (three or more years beyond Bachelor's level)

j. Education - Model. A four category version of the above was constructed.

1) Non-High school graduate
2) High school graduate
3) Some post high school education (less than a bachelor's degree)
4) Bachelor's and advanced degrees.

Areas of location is another new class, which indicates location of residence by school district. This is combined into three county regions - Lower Bucks, Middle Bucks, and Upper Bucks. Data errors made it impractical to provide areal analyses at the time this report was prepared, and will thus be incorporated in a subsequent working paper.

2. Use of Classes and Answers

The research questions answered in this paper are related to adult educational desires, plans and finances, and the relationships between these characteristics and others such as age, sex, occupational positions, occupational aspirations, and educational background. The survey questions used to estimate the above characteristics are:

Characteristics	Survey Question
Educational plans and desires	New class based on question 22

Characteristics	Survey Question
Strength of expectation (variation of plans)	New class based on question 23
Cost of Education	New class based on question 27
Age	Question 1
Sex	Introductory Question
Occupational position	Question 2
Occupational desire	Question 4
Educational Background	New class based on Question 5

C. Completeness of Coverage

The objective of the adult survey was to visit about 5000 dwelling units, in order to obtain interviews with 10 to 12,000 adults; this would represent about 5% of the estimated 210,000 adults in Bucks County. An initial sample of 4585 land parcels was drawn, which should have represented more than that number of dwelling units, since many parcels contained apartment houses. However, only 3456 DU forms were returned by the cut-off date; the enumerators were able to estimate the number of adults per DU in only 2667 units - their estimates totalled 5823 adults, or an average of 2.18 adults per dwelling unit (see Appendix B for summary of replies to DU Form). If this average held true for all 3456 contacted dwelling units, the interviewers would have included about 7540 adults in the sample.

In 55.0% of the dwelling units visited enumerators collected data on all adults living there; and in 4.8%, data was collected on more than one adult but not all. About 7% of the visits gave data only on the person there at the time, and almost 1/3 of the visits resulted in no data at all - either because no one was home (13.7%), or because of refusal to cooperate (17.4%). On 105 forms (3.1%), enumerators did not record the results of the visit.

There were 5014 questionnaires returned by the enumerators, of which 4719 were considered useable; the analyses shown in this report are based on these useable replies, representing slightly more than 2% of the estimated adult population in Bucks County.

CHARACTERISTICS AND REPRESENTATIVENESS OF SAMPLE

The major characteristics of the sample of Bucks County adults - age, sex, educational background and occupation - are set forth in Table I which, in a sense, provides a description of the sample. This description will be used to determine the representativeness of the sample by comparing it to data on the entire Bucks County adult population drawn from the 1960 census (See Table II).

Table I. Characteristics of Adult Sample - Age, Sex, Occupation, Education

Characteristics	Male n=2176		Female n=2416		No Answer n=127		Total n=4719	
	No.	%	No.	%	No.	%	No.	%
Age								
16-19	80	3.7	71	2.9	11	8.7	162	3.4
20-24	123	5.7	211	8.7	5	3.9	339	7.2
25-34	490	22.5	631	26.1	21	16.5	1142	24.2
35-44	723	33.2	751	31.1	32	25.2	1506	31.9
45-54	473	21.7	456	18.9	36	28.4	965	20.5
55-64	189	8.7	202	8.4	14	11.0	405	8.6
65 and over	87	4.0	81	3.4	6	4.7	174	3.7
No answer	11	0.5	13	0.5	2	1.6	26	0.6
Educational Background								
College and advanced degrees	416	19.1	192	7.9	32	25.2	640	13.6
Some PHSE - no degree	536	24.6	490	20.3	30	23.6	1056	22.4
High School Graduate	661	30.4	1071	44.3	33	26.0	1765	37.4
Non-High School Graduate	563	25.9	663	27.4	32	25.2	1258	26.7
Present Occupation								
Housewife	5	0.2	1745	72.2	1	0.8	1751	37.1
Clerical	82	3.8	193	8.0	7	5.5	282	6.0
Service Worker	53	2.4	47	2.0	2	1.6	102	2.2
Managerial	419	19.3	23	1.0	22	17.3	464	9.8
Professional	316	14.5	81	3.4	23	18.1	420	8.9
Skilled Worker	424	19.5	10	0.4	17	13.4	451	9.6
Sales Person	91	4.2	33	1.4	7	5.5	131	2.8
General Worker	120	5.5	36	1.5	6	4.7	162	3.4
Administrative	70	3.2	15	0.6	7	5.5	92	2.0
Semi-Skilled Worker	240	11.0	51	2.1	9	7.1	300	6.4
Semi-Professional	122	5.6	51	2.1	6	4.7	179	3.8
Other (Military, retired)	165	7.58	66	2.7	7	5.5	238	5.0
No Answer	69	3.2	65	2.7	13	10.2	147	3.1
Location of Residence								
Lower Bucks	1049	48.2	1167	48.3	44	34.6	2260	47.9
Middle Bucks	779	35.8	858	35.5	54	42.5	1691	35.8
Upper Bucks	348	16.0	391	16.2	29	22.8	768	16.3

Table II. Characteristics of the Total Bucks County Population (1960 Census)

	Male		Female		Total	
Age Groups (n=196,752)	No.	%	No.	%	No.	%
15-19	9869	10.2	9349	9.3	19218	9.8
20-24	5881	6.1	7521	7.5	13402	6.8
25-34	21989	22.8	24504	24.4	46393	23.6
35-44	25606	26.5	24676	24.6	50282	25.6
45-54	15880	16.5	14344	14.3	30224	15.4
55-64	8990	9.3	9300	9.3	18290	9.3
65 and over	8381	8.7	10562	10.5	18943	9.6
Total	96496	100.0	100256	100.0	196752	100.0
Educational Background (Age 25 and over) (n=164,131)						
Non-High School Graduate	43884	54.3	43235	51.9	87119	53.1
High School Graduate	19812	24.5	28591	34.3	48403	29.5
Some PHSE	7209	8.9	6834	8.2	14043	8.6
College Degree	9903	12.3	4663	5.6	14566	8.9
Total	80808	100.0	83223	100.0	164131	100.0
Occupation Groups (n=196,752)						
Employed	79621	82.5	30628	30.5	110249	56.0
Clerical	5367	5.6	9376	9.4	14743	7.5
Service Workers	2930	3.0	4741	4.7	7671	3.9
Managerial	7784	8.1	966	1.0	8750	4.4
Professional	10396	10.8	3954	3.9	14350	7.3
Skilled	20239	21.0	448	0.4	20687	10.5
Sales Workers	5788	6.0	2612	2.6	8400	4.3
General Worker	5409	5.6	307	0.3	5716	2.9
Semi-skilled (operative)	17216	17.8	6527	6.5	23743	12.1
Other	4492	4.7	1697	1.7	6189	3.1
Unemployed	16875	17.5	69628	69.5	86503	44.0
Total	96496	100.0	100256	100.0	196752	100.0

The sample is almost evenly divided between men (46%) and women (51%) with every age group represented. However, it should be noted that over 75% of the adults surveyed were between the ages of 25 and 54 which means that this sample contains fewer of the youngest age group (16-19) and fewer persons age 65 and over than the general population according to the 1960 Census. The smaller group of young persons in this sample can partially be attributed to the fact that many people in that age group are still in high school while the "adult survey" sample includes only those people who have been out of high school for at least one year either because they graduated or "dropped out."

The adult sample included people with all levels of education, but it seems weighted toward those with more formal education. Over 73% of the respondents have at least graduated from high school and 13.6% have college degrees. This is in comparison to only 47% of the total 1960 Bucks County population (age 25 and over) which had at least graduated from high school. Although college-going rates have increased since 1960, and the age groups covered in the sample include the college ages of 18-24, the adult sample still seems biased toward adults with some post high school education and those with a college degree.

Over 72% of the women interviewed said that they were housewives. Of those women who were employed, the largest group said that they were clerical workers and the next largest group were professionals. The majority of the men fell into four occupational groups: skilled worker (19.5%), managerial (19.3%), professional (14.5%), and semi-skilled worker (11.0%).

In comparing figures on occupation from this sample with those from the 1960 Census adjusted to include unemployed as well as employed persons, we find that the distribution of female occupations is almost identical to the distribution of the entire Bucks County female population. In the male sample, however, managerial workers and to a lesser extent professional seems to be over-represented while semi-skilled workers are under-represented.

The survey sample as a whole probably over-represents the proportion of people enrolled or planning to enroll in Post High School Education (PHSE) because of the following biases:

1. The sample is biased toward the age groups of 25-45 - the age groups from which the majority of enrollees are drawn.

2. The sample is biased toward those occupations which are more oriented toward formal education as a means of expediting advancement - Professional and Managerial.
3. It is biased toward persons with some PHSE and this is the educational group which seems most interested in continuing their education.

It is obvious that the younger and middle aged adults, with some education beyond high school already, were quite willing to cooperate with the enumerators and fill out the questionnaires; those adults who had not completed high school or who had not taken some PHSE were more likely to be not at home or to refuse to fill out the questionnaire. This is an entirely logical result for a sample of this type. In fact, the most surprising result is the comparatively small bias toward housewives. Since 7.4% of the visits got only the person at home - presumably a housewife - a strong shift might have been expected toward women and toward housewives. Evidently the interviewers were able to preik62potential bias.

A rather substantial geographic bias is also present, tending to over-represent Middle Bucks, and under-represent Lower Bucks. Working Paper #1 estimated 1965 adults to be distributed within the county as: 58.6% in Lower Bucks, 26.4% in Middle Bucks, and 15.0% in Upper Bucks.

Sample percents were: 47.9% in Lower, 35.8% in Middle, and 16.3% in Upper Bucks. The Lower Bucks interviews encountered difficulties due to a highly publicized fraudulent interviewer who preceeded our people a month before.

RESULTS

Table III shows educational background of the adult sample broken down by age group. It is interesting to note that the percentage of non-high school graduates in each age group increases with age--with one significant exception: the percentage of 16-19 year olds in this group is disproportionately high. As might be expected, the percentage of high school graduates and persons with some post high school education decreases with age. The per cent of persons with college or advanced degrees is almost the same for the following age groups: 25-34, 35-44, 45-54. This is consistent with the nationwide shift toward greater educational achievement.

Table III Adult Survey - Educational Background by Age Group

Educational Background	AGE														No Answer	
	16-19		20-24		25-34		35-44		45-54		55-64		65 and Over			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Non-High School Grad.	46	28.4	49	14.5	226	19.8	349	23.2	303	31.4	169	41.7	112	64.4	4	15.4
High School Graduate	74	45.7	151	44.5	501	43.9	586	38.9	304	31.5	108	26.7	21	12.0	20	76.9
Some Post High School Education	42	25.9	115	33.9	247	21.6	320	21.2	218	22.6	87	21.5	26	14.9	1	3.8
College Degree	0	0	24	7.0	168	14.7	251	16.7	140	14.5	41	10.1	15	8.6	1	3.8
Total	162	100	339	100	1142	100	1506	100	965	100	405	100	174	100	26	100

Only 4.1% of the adults surveyed were enrolled in a course or program in a school or college. Another 5.7% said that they plan to enroll within the next year. The majority, however, have no plans to enroll (54.4%) or only vague plans (35.8%). (See Table IV.)

These figures must be viewed with some caution, because the survey was conducted mostly during May and June, when Continuing Education classes were completed, and many college students were home for summer vacation. Therefore, people who considered themselves as "Enrolled" when the interviewer met them were probably upper class college students, graduate students, or teachers taking summer courses. As Table IV shows, they tended to be younger, with no real occupation; over half did not have a degree at the time of the survey. The people with plans to enroll probably form the main potential for most traditional "adult education" courses.

Table IV. Age, Sex, Educational Background and Occupation by Strength of Expectation

Personal Characteristics	STRENGTH OF EXPECTATION							
	Enrolled n=193		Plans to Enroll n=269		May Enroll n=1688		No Plans n=2569	
	No.	%	No.	%	No.	%	No.	%
Age in Years								
16-19	44	27.2	33	20.4	45	27.8	40	24.7
20-24	48	14.2	38	11.2	123	36.3	130	38.4
25-34	49	4.3	76	6.7	535	46.9	482	42.2
35-44	40	2.3	72	4.8	637	42.3	757	50.3
45-54	12	1.2	46	4.8	262	27.2	645	66.8
55-64	0	0.0	4	1.0	68	16.8	333	82.2
65 and Over	0	0.0	0	0.0	3	1.7	171	98.3
No Answer	0	0.0	0	0.0	15	57.7	11	42.3
Sex								
Male	119	61.7	156	58.0	761	45.1	1140	44.4
Female	64	33.2	106	39.4	887	52.5	1359	52.9
No Answer	10	5.2	7	2.6	40	2.4	70	2.7
Educational Background								
College and Advance Degree	43	22.3	67	24.9	302	17.9	228	8.9
Some PHSE - no degree	101	52.3	83	30.9	465	27.5	407	15.8
High School Graduate	32	16.6	84	31.2	649	38.4	1000	38.9
Non-High School Graduate	17	8.8	35	13.0	272	16.1	934	36.4
Present Occupation								
Housewife	15	7.8	57	21.2	661	39.2	1018	39.6
Clerical	11	5.7	16	6.0	114	6.8	141	5.5
Service Worker	6	3.1	11	4.1	23	1.4	62	2.4
Managerial	18	9.3	32	11.9	188	11.1	226	8.8
Professional	30	15.5	49	18.2	189	11.2	152	5.9
Skilled Worker	12	6.2	17	6.3	145	8.6	277	10.8
Sales Person	5	2.6	9	3.4	48	2.8	69	2.7
General Worker	4	2.1	10	3.7	25	1.5	123	4.8
Administrative	9	4.7	9	3.4	40	2.4	34	1.3
Semi-Skilled	5	2.6	15	5.6	79	4.7	201	7.8
Semi-Professional	12	6.2	15	5.6	100	5.9	52	2.0
Other (Military, retired)	55	28.5	20	7.4	35	2.1	128	5.0
No Answer	11	5.7	9	3.4	41	2.4	86	3.4

Almost all of those presently enrolled are under 45 years old, as are the majority of those who plan to enroll in the next year. There are, on the other hand, more older persons among those who say that they may enroll sometime or who have no plans to enroll. More men than women are presently enrolled or plan to enroll. The occupations of the largest number of people enrolled include: professional, managerial, and housewife. It is conceivable that some of the people presently enrolled for PHSE who checked "other" under profession were full-time students.

The majority of those who are presently taking courses are enrolled in a four year degree granting institution (59.6%) with the second largest number enrolled in a business-commercial or vocational-technical program. Those who plan to enroll within the next year or sometime in the future are also interested in four year colleges, and business-commercial, vocational-technical programs. But, they seem to be more interested in adult or continuing education courses, as well.

For the most part, adults are interested in attending classes at night, part-time, (45% of those enrolled, 63% of those who plan to enroll) or full-time during the day (29% of those enrolled, 13% of those who plan to enroll).

The most popular subject areas for those who are enrolled or plan to enroll are teacher education, liberal arts, business and engineering (See Table V).

Table V. Type of Post High School Education Desired by Strength of Expectation

	STRENGTH OF EXPECTATION							
	Enrolled n=193		Plans to Enroll n=269		May Enroll n=1688		No Plans n=2569	
Characteristics of PHSE	No.	%	No.	%	No.	%	No.	%
Type of Institution								
4 Year Degree	115	59.6	99	36.8	426	25.2	64	2.5
2 Year Degree	13	6.7	24	8.9	115	6.8	11	0.4
2 Year Non-Degree	5	2.6	10	3.7	122	7.2	7	0.3
Voc-Tech, Bus-Commer.	22	11.4	64	23.8	316	18.7	43	1.7
Continuing Education	17	8.8	63	23.4	500	29.6	18	0.7
Non Indicated	21	10.9	9	3.4	209	12.4	2426	94.4
Time Desired								
Evening part-time	87	45.1	171	63.6	1106	65.5	202	7.9
full-time	22	11.4	18	6.7	55	3.3	16	0.6
Day part-time	10	5.2	26	9.7	235	13.9	43	1.7
full-time	57	29.5	36	13.4	35	2.1	8	0.3
Weekends part-time	4	2.1	6	2.2	82	4.9	20	0.8
full-time	0	0.0	0	0.0	9	0.5	1	0.04
Non Indicated	13	6.7	12	4.5	166	9.8	2279	88.7
Subject								
Business	28	14.5	45	16.7	288	17.1	25	1.0
Engineering	23	11.9	39	14.5	168	10.0	16	0.6
Teacher Education	38	19.7	33	12.3	99	5.9	5	0.2
Nursing	5	2.6	6	2.2	90	5.3	16	0.6
Medical Technology	0	0.0	0	0.0	10	0.6	0	0.0
Art	5	2.6	6	2.2	44	2.6	7	0.3
Music	1	0.5	2	0.7	7	0.4	4	0.2
Home Economics	0	0.0	2	0.7	19	1.1	5	0.2
Liberal Arts	39	20.2	41	15.2	144	8.5	9	0.4
Agriculture	1	0.5	1	0.4	17	1.0	4	0.2
Secretarial	1	0.5	3	1.1	40	2.4	1	0.04
Trade and Industrial	7	3.6	14	5.2	67	4.0	8	0.3
Adult and Continuing Ed.	9	4.7	39	14.5	325	19.3	16	0.6
Other	15	7.8	29	10.8	161	9.5	27	1.1
Non Indicated	21	10.9	9	3.4	209	12.4	2426	94.4

The reasons given for enrolling in PHSE can be divided into two types--job-connected and personal (See Table VI). Women were more likely to give "personal" reasons for enrolling PHSE--"for personal interest or self-improvement" or "for cultural enrichment." On the other hand, the reasons given by men who are enrolled or who plan to enroll are most often job-connected--with the most popular reason being: "the courses are prerequisite for a desired position or advancement" or "they are needed to enable me to be more effective in my present position." However, respondents, on the whole, were apparently satisfied with the type of job they had. When asked whether they desired or planned to change jobs, the majority said that they did not plan to make a change or if they did, it would be to another position within the same occupational grouping.

Table VI. Reasons for Enrolling in Post High School Education

REASONS	STRENGTH OF EXPECTATION					
	Enrolled		Expect to Enroll		Total	
	No.	%	No.	%	No.	%
Job-Connected Reasons						
More education yields higher pay	22	11.4	14	5.2	36	7.8
Needed for desired position or advancement	93	48.2	81	30.1	174	37.7
Present position may be abolished	1	0.5	3	1.1	4	0.9
To make good personal or business contacts	2	1.0	3	1.1	5	1.1
To be more effective in present position	30	15.5	49	18.2	79	17.1
Personal Reasons						
Enjoy learning	6	3.1	15	5.6	21	4.5
For personal interest or self-improvement	25	13.0	66	24.5	91	19.7
For cultural enrichment	9	4.7	30	11.2	39	8.4
No Answer	5	2.6	8	3.0	13	2.8
TOTAL	193	100	269	100	462	100

Table VII shows possible reasons for not taking PHSE, and the responses given by those adults not planning to enroll soon. Most of the reasons checked as important or extremely important relate to other demands on the individuals time - job demands or family obligations. However, "cannot afford" and "courses desired are not offered" were both ranked quite high by adults who may enroll sometime. Also, adults who do not plan to take PHSE indicated age, "cannot afford" and dislike of studying as relatively important reasons, though not as strong as time - related reasons.

Table VII. Reasons For Not Enrolling in PHSE

Reasons	Degree of Importance	STRENGTH OF EXPECTATION					
		May Enroll n=1688		No Plans n=2569		Total n=4257	
		No.	%	No.	%	No.	%
Job Demands	Not Important	1168	69.2	2113	82.2	3281	77.1
	Important	520	30.8	456	17.8	976	22.9
Cannot Afford	Not Important	1219	72.2	2297	89.4	2416	56.8
	Important	469	27.8	272	10.6	741	17.4
Family Obligation	Not Important	1061	62.9	2004	78.0	3065	72.0
	Important	627	37.1	565	22.0	1192	28.0
School grades too low	Not Important	1637	97.0	2501	97.4	4138	97.2
	Important	51	3.0	68	2.6	119	2.8
Costs more than its worth	Not Important	1604	95.0	2435	94.8	4039	94.9
	Important	84	5.0	134	5.2	218	5.1
More education is unnecessary	Not Important	1567	92.8	2313	90.0	3880	91.1
	Important	121	7.2	256	10.0	377	8.9
Dislike Studying	Not Important	1639	97.1	2451	95.4	4090	96.1
	Important	49	2.9	118	4.6	167	3.9
Don't have ability	Not Important	1660	98.3	2493	97.0	4153	97.6
	Important	28	1.7	76	3.0	104	2.4
Cannot use additional education	Not Important	1651	97.8	2395	93.2	4046	95.0
	Important	37	2.2	174	6.8	211	5.0
Courses desired are not offered	Not Important	1110	65.8	2436	94.8	3546	83.3
	Important	578	34.2	133	5.2	711	16.7
Too old	Not Important	1651	97.8	2266	88.2	3917	92.0
	Important	37	2.2	303	11.8	340	8.0

The estimated cost of tuition, books and fees for one year varies considerably (See Table VIII). Of those who are enrolled, 20% estimate the cost is under $200. Another 23% say it's between $200 and $400. And, another 22% say that it's over $1000. 44% of those who plan to enroll within a year estimate the cost will be under $200; 18% say it will be between $200 and $400; and 11% over $1000.

Most people who are enrolled or plan to enroll get the money for PHSE from savings or current earnings; 54% of those enrolled get 20%-100% of the costs from this source (See Table IX). For another 24% of those enrolled, parental gifts are a major source of funds. Another 11% say they have taken out loans from institutions.

Table VIII. Perceived Cost of PHSE For One Year

	STRENGTH OF EXPECTATION							
	Enrolled		Plans to Enroll		May Enroll		Total	
Estimated Cost	No.	%	No.	%	No.	%	No.	%
Less than $200	38	19.7	120	44.6	452	26.8	610	28.4
$200-$399	45	23.3	48	17.8	182	10.8	275	12.8
$400-$599	31	16.1	25	9.3	138	8.2	194	9.0
$600-$799	16	8.3	14	5.2	67	4.0	97	4.5
$800-$999	15	7.8	7	2.6	17	1.0	39	1.8
Over $1000	42	21.8	29	10.8	105	6.2	176	8.2
No Answer	6	3.1	26	9.7	727	43.1	759	35.3
Total	193	100.0	269	100.0	1688	100.0	2150	100.0

Table IX. Source of PHSE Funds

		STRENGTH OF EXPECTATION					
		Enrolled n=193		Plans to Enroll n=269		Total n=462	
Source	Proportion of Total Funds	No.	%	No.	%	No.	%
Loans from Institutions	No source, no ans.	161	83.4	260	96.7	421	91.1
	1 - 19%	11	5.7	5	1.9	16	3.5
	20-100%	21	10.9	4	1.5	25	5.4
Loans from family	No source, no ans.	166	86.0	239	88.8	405	87.7
	1 - 19%	12	6.2	2	0.7	14	3.0
	20-100%	15	7.8	28	10.4	43	9.3
Scholarships	No source, no ans.	170	88.0	259	96.3	429	92.9
	1 - 19%	6	3.1	3	1.1	9	1.9
	20-100%	17	8.8	7	2.6	24	5.2
Parental Gifts	No source, no ans.	134	69.4	235	87.4	369	79.9
	1 - 19%	13	6.7	4	1.5	17	3.7
	20-100%	46	23.8	30	11.1	76	16.5
Savings and current earnings	No source, no. ans.	65	33.7	93	34.6	158	34.2
	1 - 19%	24	12.4	16	6.0	40	8.7
	20-100%	104	53.9	160	59.5	264	57.1
Still needed	No source, no. ans.	161	83.4	234	87.0	395	85.5
	1 - 19%	13	6.7	3	1.1	16	3.5
	20-100%	19	9.8	32	11.9	51	11.0

Table X. Strength of Expectation for PHSE, by Age and Educational Background

		STRENGTH OF EXPECTATION				
Age in Years		Enrolled	Plans to Enroll	May Enroll	No Plans	Total
16-19	No.	44	33	45	40	162
	%	27.2	20.4	27.8	24.7	100.0
20-24	No.	48	38	123	130	339
	%	14.2	11.2	36.3	38.4	100.0
25-34	No.	49	76	535	482	1142
	%	4.3	6.7	46.9	42.2	100.0
35-44	No.	40	72	637	757	1506
	%	2.7	4.8	42.3	50.3	100.0
45-54	No.	12	46	262	645	965
	%	1.3	4.8	27.2	66.8	100.0
55-64	No.	0	4	68	333	405
	%	0.0	1.0	16.8	82.2	100.0
65 and over	No.	0	0	3	171	174
	%	0.0	0.0	1.7	98.3	100.0
No Answer	No.	0	0	15	11	26
	%	0.0	0.0	57.7	42.3	100.0
Educational Background						
College and Advanced Degree	No.	43	67	302	228	640
	%	6.7	10.5	47.2	35.6	100.0
Some PHSE - no degree	No.	101	83	465	407	1056
	%	9.6	7.9	44.0	38.5	100.0
High School Graduate	No.	32	84	649	1000	1765
	%	1.8	4.8	36.8	56.7	100.0
Non-High School Graduate	No.	17	35	272	934	1258
	%	1.4	2.8	21.6	74.2	100.0
TOTAL	No.	193	269	1688	2569	4719
	%	4.1	5.7	35.8	54.4	100.0

Table XI. Subject Desired, by Strength of Expectation

	STRENGTH OF EXPECTATION							
	Enrolled		Plans to Enroll		May Enroll		No Plans	
Subject Desired	No.	%	No.	%	No.	%	No.	%
Business	28	14.5	45	16.7	288	17.1	25	1.0
Engineering	23	11.9	39	14.5	168	10.0	16	0.6
Teacher Education	38	19.7	33	12.3	99	5.9	5	0.2
Nursing	5	2.6	6	2.2	90	5.4	16	0.6
Medical Technology	0	0.0	0	0.0	10	0.6	0	0.0
Art	5	2.6	6	2.2	44	2.6	7	0.3
Music	1	0.5	2	0.7	7	0.4	4	0.2
Home Economics	0	0.0	2	0.7	19	1.1	5	0.2
Liberal Arts	39	20.2	41	15.2	144	8.5	9	0.4
Agriculture	1	0.5	1	0.4	17	1.0	4	0.2
Secretarial	1	0.5	3	1.1	40	2.4	1	0.04
Trade & Industrial	7	3.6	14	5.2	67	4.0	8	0.4
Adult & Continuing Ed.	9	4.7	39	14.5	325	19.3	16	0.6
Other	15	7.8	29	10.8	161	10.0	27	1.1
None	21	10.9	9	3.4	209	12.4	2426	9.44
TOTAL	193	100.0	269	100.0	1688	100.0	2569	100.0

ESTIMATES FOR TOTAL BUCKS COUNTY

Estimates of total adult demand for post high school education by Bucks County residents are needed. A simple approach would be to multiply all figures in the 2.2 sample by a factor of 45.5 to obtain 100%. However, this would certainly overestimate demand, since the sample includes a higher proportion of educated people and those interested in education than exists in the total population of Bucks County. Therefore, while the total must be multiplied by 45.5, the components of the total must be multiplied by different factors.

Prior to completion of the 1970 U.S. Census, there is no valid method for conversion of sample totals to estimates of Bucks County as a whole. The only relevant county totals (age, educational background, and occupational distributions) are based on the 1960 census; forcing the sample into these distributions would probably be just as inaccurate as multiplying everything by 45.5.

An illustrative method will be given here, in order to gain some feeling for maximum and possible minimum values for one distribution of interest - Strength of Expectation for PHSE.

The minimum will be computed by assuming the number of responses in categories "Enrolled" and "Plan to Enroll" are the same as would have been obtained from a truly representative 5% sample; therefore these figures are multiplied by 20; the other two categories are multiplied by the balancing factor of 59.37. Results are given in Table XII. Note that the "minimum" shows 9240 with definite plans to enroll or already enrolled - this can be compared with total enrollment space (including the community college) in Bucks County of about 7000 (from working paper 3 on resources). Many adults would be attending institutions or classes outside of Bucks County, so this estimate appears reasonable. However, it is still only an informed estimate, the validity of which can not be demonstrated at this time.

Table XII. Total Bucks County Estimates for Strength of Expectation

Strength Category	Sample		Bucks County "Maximum"		Bucks County "Minimum"	
	No.	%	No.	%	No.	%
Enrolled	193	4.1	8793	4.1	3860	1.8
Plans to Enroll	269	5.7	12256	5.7	5380	2.5
May Enroll Sometime	1688	35.8	76905	35.8	81614	37.9
No Plans for PHSE	2569	54.4	117044	54.4	124209	57.8
TOTAL	4719	100.0	215063	100.0	215063	100.0

Appendix A

Research Questions

What are the needs for post high school education of adult high school graduates and adults who are not high school graduates?

A. What do they want to do?

1. What type of post high school institution do they want to attend? Part-time? Full-time? Day? Evening?
2. What type of educational program do they wish to pursue? Initially? Ultimately?
3. What are the occupational career interests of adults for the immediate future?

B. What do they plan or expect to do?

1. What post high school institution do they plan to attend? Part-time? Full-Time? Day? Evening?
2. What type of educational program do they plan to pursue now?
3. For those whose immediate plan is work only, what reasons do they give for not continuing their education?
4. What type of program have they applied for, if any?
5. What type of program are they now enrolled in, if any?

C. What can they afford to do?

1. To what extent have adults made plans to support their interests in post high school education?
2. What is the maximum annual contribution adults feel they can make toward their interests in post high school education?

D. What are the occupational positions and interests of adults?

1. What types of jobs do adults hold?
2. To what extent do adults desire to change their occupation?
3. To what extent are adults planning to change their occupation now?
4. To what extent do adults desire further education to advance in their current occupation?

E. To what extent would adults attend further education or training if it were paid for? Not paid for?

F. To what extent do adults feel their desires to change occupations cause a need for further education?

G. What hours would adults be available for attending further education?

APPENDIX B

Questionnaire Given to Adults

BUCKS COUNTY STUDY OF POST HIGH SCHOOL
EDUCATION NEEDS 1968-1980

DO NOT WRITE IN THIS SPACE

ICN 2 8

SIDN ☐☐☐☐☐☐

SDCN ☐☐☐

MMPN ☐

CECN ☐☐☐

Adult Questionnaire

Today's Date:

☐☐ ☐☐ 6 7

Mo.Da. Yr.

Check One:

2176
127* ☐ 1 Male ☐ 2 Female 2416

DIRECTIONS:

Please be sure to answer __every__ question below as sincerely and thoughtfully as you can. Most of the questions can be answered by just marking an X in the box to the left of the answer you choose. __Do not skip any question__ - __answer every question__.

PART I. GENERAL AND OCCUPATION INFORMATION

1. Please mark X in the box that is closest to your present age.

☐ 1 16-19 yrs. ☐ 3 25-34 yrs. ☐ 5 45-54 yrs. ☐ 7 65 yrs. +

☐ 2 20-24 yrs. ☐ 4 35-44 yrs. ☐ 6 55-64 yrs.

	No.	%
1.	162	3.4
2.	339	7.2
3.	1142	24.2
4.	1506	31.9
5.	965	20.5
6.	405	8.6
7.	174	3.7
*	26	0.6

2. Which of the following occupation groups represents your __present occupation__? __Mark only one from 01 to 12.__

No.	%		
1751	37.1	☐ 01	__Housewife__
282	6.0	☐ 02	__Clerical__ - (Typical occupations: bookkeeper, cashier, office machine operators, general clerks, stock clerks, stenographers, typist clerks, etc.)

These occupations are concerned with preparing, transcribing, transferring, systematizing or preserving written communications and records. The duties of most occupations in this group are performed by mental and manual processes, but also may include the operation of such devices as bookkeeping machines or calculators.

(Question 2 continued next page)

* No Answer

ICN
2 8

Question 2 (Cont'd.)

No. %

102 2.2 ☐ 03 Service Worker - (Typical occupations: hotel maids, housekeepers for hotels institutions, chefs and cooks, waiters, guards and watchmen, firemen and policemen, charwomen and cleaners, janitors, porters, elevator operators, etc.)

This group includes those occupations concerned with the performance of services for persons that require either direct contact or close association with the individual; occupations concerned with the protection of individuals or of public or private property; occupations related to the cleaning of the interior and equipment of buildings; and occupations concerned with the moving or carrying of equipment, baggage and other articles.

464 9.8 ☐ 04 Managerial - (Typical occupations: foremen, executives, supervisors, self-employed, etc.)

These occupations are concerned primarily with responsible policy-making, planning, supervising, coordinating or guiding the work activities of others, usually through intermediate supervisors. Typical occupations: managers or presidents of enterprises; superintendents of construction projects; and, because of their official capacities, treasurers and executive secretaries. All supervisory foremen who spend more than 80 per cent of their time on supervisorial duties are also included in this group. "Working"foremen who spend most of their time in operative capacities are included in the appropriate group according to the type of work done.

420 8.9 ☐ 05 Professional - (Typical occupations: mechanical, civil or electrical engineer, lawyer, physicist, actuary, teacher, doctor, etc.)

These occupations require a high degree of independent mental activity by the worker and are concerned with theoretical and practical aspects of complex fields of endeavor. Most occupations in the group require extensive and comprehensive academic courses of study or experience of a scope and character to provide the necessary background.

451 9.6 ☐ 06 Skilled Worker - (Typical occupations: bakers, tailors, carpenters, typesetters, plumbers, all-round machinists, toolmakers, welders, electricians, mechanics, etc.)

These crafts and manual occupations require predominantly a thorough and comprehensive knowledge of processes involved in the work, the exercise of independent judgment, usually a high degree of manual dexterity and, in some occupations, extensive responsibility for valuable products or equipment. Workers in these occupations usually become qualified by serving apprenticeships or completing extensive training periods. Foremen of manual and craft workers who spend more than 20 per cent of their time in actual operations are included within the occupations of the workers.

(Question 2 contined next page)

No. %

ICN
2 8

Question 2 (Cont'd.)

131 2.8 ☐ 07 Sales Person - (Typical occupations: salesclerks, retail and wholesale salesmen, etc.)

These occupations are concerned with the sale of commodities, investments, real estate and services. Also included are some occupations closely identified with sales transactions. Typical occupations: salesclerks; salespersons of wearing apparel, household goods, automotive equipment; printing, publishing and advertising salesmen; percision instruments salesmen; communications equipment salesmen. Related occupations include demonstrators and comparison shoppers. Sales personnel who require a great deal of technical or professional knowledge of college level don't belong here. They come under semi-professional or professional employees depending on the educational qualifications required.

162 3.4 ☐ 08 General Worker - (Typical occupations: wheelbarrow man; laborer, any industry, assembler helper; flagman; bag tier; etc.)

These occupations involve the performance of simple duties that may be learned quickly and that require the exercise of little or no independent judgment, though a familiarity with the occupational environment may be necessary or desirable. No experience in the occupation itself is required for those seeking employment.

92 2.0 ☐ 09 Administrative - (Typical occupations: administrative assistant, time study engineer, cost estimators, office manager, etc.)

These occupations are primarily concerned with the performance of office or nonmanual field work directly related to management policies or general business operations. Administrative employees customarily exercise discretion and independent judgment and work under general supervision carrying out special assignments and tasks. If special professional or semi-professional education is required the appropriate box for these groups of occupations should be marked.

300 6.4 ☐ 10 Semi-Skilled Worker - (Typical occupations: assembler of equipment, machine operator, coil winder, routeman, truck driver, etc.)

These occupations are characterized by one or more of the following requirements: the exercise of manipulation ability of a high order, but limited to a well-defined work routine; major reliance upon materials or products; judgment limited by its application to a narrow field or by having important decisions made by others. These occupations may require the performance of a limited part of a craft or skilled occupation.

(Question 2 continued next page)

ICN

2	8

No.	%		
			Question 2 (Cont'd.)
179	3.8	☐ 11	**Semi-Professional** - (Typical occupations: laboratory technicians and assistants, X-ray technicians, draftsmen, surveyors, electronic technicians, nurses, etc.)

These occupations require rather extensive education or experience or a combination of both for the proper performance of the work. The fields of endeavor of the semi-professional or technical worker do not usually require as broad a background or as much initiative and judgment as the professional occupations in dealing with complicated situations. The occupations are more typically confined to narrower fields of activity than the professional occupations and are most often concerned with the technical or mechanical aspects of broad, theoretical fields.

No.	%		
238	5.0	☐ 12	Other - (Military service, retired, unemployed, etc.)
*147	3.1		

3. Is your place of employment located within or outside Bucks County?

No.	%		
1649	34.9	☐ 1	This question doesn't apply to me.
1641	34.8	☐ 2	Within Bucks County
1224	25.9	☐ 3	Outside Bucks County
*205	4.3		

4. If you desire or are planning to change your occupational group, mark an X in the box opposite your choice. If your occupational choice is within the same occupational group, mark an X in Box #02.

No.	%		
2795	59.23	☐ 01	I don't desire nor am I planning to make a change.
679	14.3	☐ 02	The occupation I desire or plan to assume is in the same occupational group in which I am now employed.
469	9.9	☐ 03	**Housewife** -
74	1.6	☐ 04	**Clerical** - (Typical occupations: bookkeeper, cashier, office machine operator, general clerks, stock clerks, stenographers, typist clerks, etc.)
4	0.1	☐ 05	**Service Worker** - (Typical occupations: hotel maids, housekeepers for hotels and institutions, chefs and cooks, waiters, guards and watchmen, firemen and policemen, charwomen and cleaners, janitors, porters, elevator operators, etc.)
71	1.5	☐ 06	**Managerial** - (Typical occupations: foremen, executives, supervisors, self-employed, etc.)
120	2.5	☐ 07	**Professional** - (Typical occupations: mechanical, civil or electrical engineer, lawyer, physicist, actuary, teacher, doctor, etc.)

(Question 4 continued next page)

* No Answer

ICH

2	8

Question 4 (Cont'd.)

No.	%		
30	0.6	☐ 08	**Skilled Worker** - (Typical occupations: bakers, tailors, carpenters, typesetters, plumbers, all-round machinists, toolmakers, welders, electricians, mechanics, etc.)
8	0.2	☐ 09	**Sales Person** - (Typical occupations: salesclerks, retail and wholesale salesmen, etc.)
2	0.1	☐ 10	**General Worker** - (Typical occupations: wheelbarrow man; laborer, any industry; assembler helper; flagman; bag tier; etc.)
18	0.4	☐ 11	**Administrative** - (Typical occupations: administrative assistant, time study engineers, cost estimators, office managers, etc.)
13	0.3	☐ 12	**Semi-Skilled Worker** - (Typical occupations: assembler of equipment, machine operator, coil winder, routeman, truck driver, etc.)
62	1.3	☐ 13	**Semi-Professional** - (Typical occupations: laboratory technicians and assistants, X-ray technicians, draftsmen, surveyors, electronic technicians, nurses, etc.)
65	1.4	☐ 14	**Other** - (Military service, retired, unemployed, etc.)
*312	6.6		

PART II. GENERAL EDUCATION INFORMATION AND EDUCATION PLANS

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5. What is the highest level of education you have completed?

No.	%		
53	1.1	☐ 01	Grades 1-6
540	11.4	☐ 02	Grades 7, 8 or 9
630	13.4	☐ 03	Grades 10 or 11
1765	37.4	☐ 04	Grade 12
233	4.9	☐ 05	Vocational or technical school graduate beyond 12th grade
146	3.1	☐ 06	Commercial or business school graduate beyond 12th grade
43	0.9	☐ 07	Community or junior college graduate or two-year university extension center graduate
157	3.3	☐ 08	One year of college
194	4.1	☐ 09	Two years of college
114	2.4	☐ 10	Three years of college

(Question 5 continued next page)

* No Answer

ICH
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Question 5 (Cont'd.)

No.	%	
450	9.5	☐ 11 Bachelor's degree (Four years of college)
130	2.8	☐ 12 Master's degree (One to two years beyond Bachelor's level)
60	1.3	☐ 13 Doctor's degree (Three or more years beyond Bachelor's level)
*204	4.3	

QUESTIONS 6-16

How important to you is each of the following as a reason for your not obtaining any additional education? Be sure you reply to each reason.

6. The time spent in my present job prevents me from taking additional education.

				No.	%
1842	39.0	☐ 1 Doesn't apply to me.	☐ 4 Important	649	13.4
1265	26.8	☐ 2 Not a reason	☐ 5 Extremely important	383	8.1
				*85	1.8
495	10.5	☐ 3 Minor importance			

***** ***** *****

7. It costs more than I can afford.

1663	35.2	☐ 1 Doesn't apply to me.	☐ 4 Important	587	12.4
1563	33.1	☐ 2 Not a reason	☐ 5 Extremely important	226	4.8
				*120	2.6
560	11.9	☐ 3 Minor importance			

***** ***** *****

8. My family obligations do not permit me to take additional education.

1575	33.4	☐ 1 Doesn't apply to me.	☐ 4 Important	767	16.3
1336	28.3	☐ 2 Not a reason	☐ 5 Extremely important	488	10.3
				*93	2.0
460	9.8	☐ 3 Minor importance			

***** ***** *****

9. My school grades were too low.

2180	46.2	☐ 1 Doesn't apply to me.	☐ 4 Important	107	2.3
2037	43.1	☐ 2 Not a reason	☐ 5 Extremely important	20	0.4
				*120	2.5
255	5.4	☐ 3 Minor importance			

***** ***** *****

(Continue to next page)

* No Answer

ICN

2 | 8

10. It costs more than it is worth to me.

No.	%			No.	%
1814	38.4	☐ 1 Doesn't apply to me.	☐ 4 Important	187	4.0
2244	47.6	☐ 2 Not a reason	☐ 5 Extremely important	41	0.9
314	6.7	☐ 3 Minor importance		*119	2.5

***** ***** *****

11. More education will not help me do the things in which I am most interested.

No.	%			No.	%
1843	39.0	☐ 1 Doesn't apply to me.	☐ 4 Important	293	6.2
1995	42.3	☐ 2 Not a reason	☐ 5 Extremely important	111	2.4
345	7.3	☐ 3 Minor importance		*132	2.8

***** ***** *****

12. I don't like to study.

No.	%			No.	%
2039	43.2	☐ 1 Doesn't apply to me.	☐ 4 Important	136	2.9
2016	42.7	☐ 2 Not a reason	☐ 5 Extremely important	39	0.8
358	7.6	☐ 3 Minor importance		*131	2.8

***** ***** *****

13. I don't think I have the ability.

No.	%			No.	%
2117	44.9	☐ 1 Doesn't apply to me.	☐ 4 Important	94	2.0
2164	45.9	☐ 2 Not a reason	☐ 5 Extremely important	15	0.3
191	4.0	☐ 3 Minor importance		*138	2.9

***** ***** *****

14. I probably cannot use additional education.

No.	%			No.	%
1962	41.6	☐ 1 Doesn't apply to me.	☐ 4 Important	150	3.2
2170	46.0	☐ 2 Not a reason	☐ 5 Extremely important	64	1.4
246	5.2	☐ 3 Minor importance		*127	2.7

***** ***** *****

(Continue to next page)

* No Answer

% ICN 2 8 No. %

15. The courses I would like to take are not offered at a time and place convenient to me.

4 37.4 ☐ 1 Doesn't apply to me. ☐ 4 Important 521 11.0
18 36.4 ☐ 2 Not a reason ☐ 5 Extremely important 288 6.1
99 6.3 ☐ 3 Minor importance *129 2.7

***** ***** *****

16. I feel that I am too old to continue my education.

77 37.7 ☐ 1 Doesn't apply to me. ☐ 4 Important 200 4.2
63 43.7 ☐ 2 Not a reason ☐ 5 Extremely important 143 3.0
47 7.4 ☐ 3 Minor importance *189 4.0

***** ***** *****

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17. What is the most important reason for your taking additional education?

37 53.8 ☐ 1 I am not planning to take additional education.
45 3.1 ☐ 2 People who have more education make more money.
12 8.7 ☐ 3 The position or advancement I want requires more education.
18 0.4 ☐ 4 My present position may be abolished.
28 0.6 ☐ 5 To make good personal contacts for business or a position
44 3.1 ☐ 6 Because I enjoy learning.
89 8.2 ☐ 7 To be more effective in my present position.
31 15.5 ☐ 8 For personal interest or self-improvement.
275 5.8 ☐ 9 For cultural enrichment or to acquire a hobby.
40 0.9

---

18. When would you have time for taking additional education?

91 50.7 ☐ 1 I am not interested in obtaining additional education.
17 30.0 ☐ 2 Evening, part-time ☐ 5 Day, full-time 136 2.9
11 2.4 ☐ 3 Evening, full-time ☐ 6 Weekends, part-time 112 2.4
14 6.7 ☐ 4 Day, part-time ☐ 7 Weekends, full-time 10 0.2
*228 4.8

(Continue to next page)

* No Answer

ICN

2	8

19. **If you are now enrolled in an educational program, when are you taking the program?**

No.	%			No.	%
273	90.6	☐ 1 I am not enrolled.	☐ 4 Day, part-time	43	0.9
143	3.0	☐ 2 Evening, part-time	☐ 5 Day, full-time	117	2.5
18	0.4	☐ 3 Evening, full-time	☐ 6 Weekends, part-time	3	0.1
			☐ 7 Weekends, full-time	0	0.0
				*122	2.6

---

20. **If you are now enrolled in an education program what type of program are you taking? If your choice is not on the list, mark the one that is closest to it. Mark only one from 01 to 50.**

No.	%	
183	88.6	☐ 01 I am not enrolled in an education program.

FOUR-YEAR COLLEGE OR UNIVERSITY PROGRAMS

No.	%			No.	%
26	0.6	☐ 02 Business	☐ 10 Liberal arts (Science related-physical and natural sciences)	16	0.3
29	0.6	☐ 03 Engineering	☐ 11 Liberal arts (Non-science--pre-law, pre-medicine, pre-theology, literature, etc.)	25	0.5
59	1.3	☐ 04 Teacher education			
10	0.2	☐ 05 Nursing	☐ 12 Agriculture	1	0.02
2	0.04	☐ 06 Medical technology	☐ 13 Textile design, engineering and chemistry	6	0.1
3	0.1	☐ 07 Art			
6	0.1	☐ 08 Music	☐ 14 Other programs	15	0.3
1	0.02	☐ 09 Home economics			

(Question 20 continued next page)

* No Answer

ICN
2 8

Question 20 (Cont'd.)

COMMUNITY OR JUNIOR COLLEGE OR TWO-YEAR UNIVERSITY EXTENSION CENTER

Programs Allowing Transfer to Four-Year Colleges or Universities

	%			
2	0.04	☐	15	Liberal arts (Non-science)
2	0.04	☐	16	Liberal arts (Science related)
8	0.2	☐	17	Teacher education
0	0.0	☐	18	Medical technology
0	0.0	☐	19	Basic engineering
0	0.2	☐	20	Business management
1	0.02	☐	21	Art
1	0.02	☐	22	Music
0	0.0	☐	23	Home economics
1	0.02	☐	24	Other programs

Programs Least Likely to Allow for Transfer to Four-Year Colleges or Universities

			No.	%
☐	25	Practical nursing	0	0.0
☐	26	Medical or dental assistant	0	0.0
☐	27	Electrical engineering technology	1	0.02
☐	28	Laboratory or engineering technology	1	0.02
☐	29	Data processing technology	1	0.02
☐	30	Business administration	0	0.0
☐	31	Retail merchandising	0	0.0
☐	32	Secretarial (All levels)	2	0.04
☐	33	Other programs	1	0.02

VOCATIONAL OR TECHNICAL PROGRAMS BEYOND 12th GRADE
(Length of programs will vary)

7	0.2	☐	34	Trade and industrial programs (Carpentry and other trades, machine operators, auto mechanics, etc.)
0	0.0	☐	35	Home economics
5	0.1	☐	36	Distributive education programs (Sales, merchandising and other programs relating to distribution of goods and services.)
1	0.02	☐	37	Agriculture (Horticulture, floriculture, etc.)
19	0.4	☐	38	Technical programs (Laboratory technician, engineering technology, data processing technology and related technical specializations.)
1	0.02	☐	39	Health programs (Practical nursing and other programs for support of the health professions.)
14	0.3	☐	40	Other programs

(Question 20 continued next page)

ICN

2	8

Question 20 (Cont'd.)

CONTINUING EDUCATION PROGRAMS

(Not for college credit--these programs are usually given in the evenings at university extension centers and local high schools)

No.	%		
10	0.2	☐ 41	Business management
1	0.02	☐ 42	Accounting
6	0.1	☐ 43	Electronic technology
3	0.1	☐ 44	Engineering technology
2	0.04	☐ 45	Special seminar programs of interest to the community

		No.	%
☐ 46	General adult education programs (Art, hobbies, etc.)	18	0.4
☐ 47	Real estate management	3	0.1
☐ 48	Basic adult education (Reading, writing and arithmetic)	3	0.1
☐ 49	Citizenship training	0	0.0
☐ 50	High school completion programs	12	0.3
		*201	4.3

---

21. If you are now taking additional education what type of school or college are you now attending?

No.	%		
4105	87.0	☐ 1	I am not attending a school or college.
28	0.6	☐ 2	Vocational or technical school beyond 12th grade
14	0.3	☐ 3	Business or commercial school beyond 12th grade
36	0.8	☐ 4	Community or junior college or two-year university extension center
144	3.1	☐ 5	Four-year college or university
124	2.6	☐ 6	None of the above
*267	5.7		

(Continue to next page)

* No Answer

ICN

2 8

22. If you would like to take or will take additional education in the future which education program would you like to take? If your choice is not on the list, mark the one that is closest to it. Mark only one from 01 to 50.

o.	%		
65	56.5	☐ 01	I am not planning to take additional education.

FOUR-YEAR COLLEGE OR UNIVERSITY PROGRAMS

o.	%		
36	2.9	☐ 02	Business
95	2.0	☐ 03	Engineering
39	3.0	☐ 04	Teacher education
63	1.3	☐ 05	Nursing
5	0.1	☐ 06	Medical technology
31	0.7	☐ 07	Art
12	0.3	☐ 08	Music
10	0.2	☐ 09	Home economics

		No.	%
☐ 10	Liberal arts (Science related-physical and natural sciences)	45	1.0
☐ 11	Liberal arts (Non-science--pre-law, pre-medicine, pre-theology, literature, etc.)	60	1
☐ 12	Agriculture	9	0.2
☐ 13	Textile design, engineering and chemistry	13	0.3
☐ 14	Other programs	86	1.8

COMMUNITY OR JUNIOR COLLEGE OR TWO-YEAR UNIVERSITY EXTENSION CENTER

Programs Allowing Transfer to Four-Year Colleges or Universities

20	0.4	☐ 15	Liberal arts (Non-science)
11	0.2	☐ 16	Liberal arts (Science related)
36	0.8	☐ 17	Teacher education
5	0.1	☐ 18	Medical technology
13	0.3	☐ 19	Basic engineering
43	0.9	☐ 20	Business management
18	0.4	☐ 21	Art
2	0.04	☐ 22	Music
4	0.1	☐ 23	Home economics
11	0.2	☐ 24	Other programs

Programs Least Likely to Allow for Transfer to Four-Year Colleges or Universities

☐ 25	Practical nursing	11	0.2
☐ 26	Medical or dental assistant	11	0.2
☐ 27	Electrical engineering technology	10	0.2
☐ 28	Laboratory or engineering technology	5	0.1
☐ 29	Data processing technology	24	0.5
☐ 30	Business administration	15	0.3
☐ 31	Retail merchandising	7	0.2
☐ 32	Secretarial (All levels)	45	1.0
☐ 33	Other programs	16	0.3

(Question 22 continued next page)

ICN
2 8

Question 22 (Cont'd.)

VOCATIONAL OR TECHNICAL PROGRAMS BEYOND 12th GRADE
(Length of programs will vary)

No.	%		
96	2.0	☐ 34	Trade and industrial programs (Carpentry and other trades, machine operators, auto mechanics, etc.)
12	0.3	☐ 35	Home economics
23	0.5	☐ 36	Distributive education programs (Sales, merchandising and other programs relating to distribution of goods and services.)
14	0.3	☐ 37	Agriculure (Horticulture, floriculture, etc.)
52	1.1	☐ 38	Technical programs (Laboratory technician, engineering technology, data processing technology and related technical specializations.)
32	0.7	☐ 39	Health programs (Practical nursing and other programs for support of the health professions.)
216	4.6	☐ 40	Other programs

CONTINUING EDUCATION PROGRAMS
(Not for college credit--these programs are usually given in the evenings at university extension centers and local high schools)

No.	%		
112	2.4	☐ 41	Business management
29	0.6	☐ 42	Accounting
26	0.6	☐ 43	Electronic technology
21	0.5	☐ 44	Engineering technology
30	0.6	☐ 45	Special seminar programs of interest to the community

		No.	%
☐ 46	General adult education programs (Art, hobbies, etc.)	238	5.0
☐ 47	Real estate management	21	0.5
☐ 48	Basic adult education (Reading, writing and arithmetic)	19	0.4
☐ 49	Citizenship training	4	0.1
☐ 50	High school completion programs	98	2.1
		*0	0.0

---

23. Which one of the following statements most closely describes your additional education plans?

No.	%		
2449	51.9	☐ 1	I don't plan to take additional education.
193	4.1	☐ 2	I am now taking a course or program at a school or college.
172	3.6	☐ 3	I will be taking a course or program at a school or college within six months.
83	1.8	☐ 4	I will be taking a course or program at a school or college from six to twelve months from now.
87	1.8	☐ 5	I will be taking a course or program at a school or college more than twelve months from now.
1601	33.9	☐ 6	I would like more education but I have no definite plans.
*134	2.8		

(Continue to next page)

* No Answer

ICN 2 8

24. Are you now participating or do you expect to participate in a training program in business or industry?

No.	%		No.	%
1	78.4	☐ 1 I am not participating nor do I expect to participate.		
1	4.5	☐ 2 I am now participating.		
1	3.8	☐ 3 I am planning to participate.		
5	11.1	☐ 4 I am not now participating but I would like to participate.		
1	2.1			

---

25. If you are now taking additional education, how far must you travel from your home to the institution giving the program?

8	87.3	☐ 1 I am not taking additional education.	☐ 3 10-20 miles	126	2.7
2	3.2	☐ 2 Less than 10 miles	☐ 4 More than 20 miles	149	3.2
				*174	3.7

PART III. FINANCIAL PLANS FOR MEETING COSTS OF ADDITIONAL EDUCATION

---

26. Does your employer support your taking additional education?

9	34.1	☐ 1 I don't know.
8	2.9	☐ 2 Yes, he provides time off with pay and some tuition money.
3	1.1	☐ 3 Yes, he provides time off with pay but no tuition money.
3	9.8	☐ 4 Yes, he provides no time off with pay but provides some tuition money.
6	24.5	☐ 5 Neither time off with pay nor tuition money.
0	27.5	

---

27. If you are planning to take or are now taking additional education, how much money do you estimate you will need to defray the cost of education for one year? Include only the cost of tuition, books and fees. Include the full amount even if you expect to obtain some of the money from other than personal savings.

4	63.7	☐ 1 I am not planning to take additional education.			
9	13.3	☐ 2 Less than $200	☐ 5 $600 - $799	101	2.1
3	6.0	☐ 3 $200 - $399	☐ 6 $800 - $999	40	0.9
2	4.3	☐ 4 $400 - 599	☐ 7 $1,000 or more	180	3.8
				*280	5.9

(Continue to next page)

* No Answer

ICN

2 8

QUESTIONS 28-33

Of the total amount of money you need for your first year of additional education, what per cent do you expect to get from one or more of the following sources? If you are not taking or planning to take additional education mark X in Column #1 opposite each source of funds or question. If it is not a source mark X in Column #1. Choose the closest answer and mark X in the appropriate column. Be sure you respond to each source or question.

	Doesn't apply to me or not a source.	Per cent					
		1-19%	20-39%	40-59%	60-79%	80-100%	
	1	2	3	4	5	6	No Answer
28. Loans from or through institutions I expect to attend.	3164 67.1	27 0.6	21 0.5	14 0.3	4 0.1	22 0.5	1467 31.1
29. Loans from family, friends and/or other sources (Bank, credit union, etc.)	3024 64.1	41 0.9	39 0.8	54 1.1	16 0.3	43 0.9	1502 31.8
30. Scholarships	3099 65.7	14 0.3	12 0.3	16 0.3	4 0.1	18 0.9	1556 33.0
31. Parents and/or relatives (Gift or legacy)	3023 64.1	33 0.7	36 0.8	17 0.4	11 0.2	58 1.2	1541 32.7
32. Savings and current earnings	2458 52.1	89 1.9	79 1.7	116 2.5	36 0.8	785 16.6	1156 24.5
33. After all of the above sources are combined what percentage will you still need from some other source?	2884 61.1	41 0.9	36 0.8	61 1.3	27 0.6	37 0.8	1633 34.6
	1	2	3	4	5	6	

NOTE: Does the total per cent of money you need equal about 100%?

(Stop)

Appendix B

Supplement

Added Classes Derived From Survey Data

	No.	%
	4719	100.0
1. Strength of Expectation for PHSE		
1 = Presently enrolled	193	4.1
2 = Plans to enroll within 12 months	269	5.7
3 = May enroll sometime	1688	35.8
4 = No plans for PHSE	2569	54.4
2. Cost of PHSE		
1 = Less than $200	3913	82.9
2 = $200-$399	283	6.0
3 = $400-$499	202	4.3
4 = $600-$799	101	2.1
5 = $800-$999	40	0.9
6 = $1000 and over	180	3.8
3. Cost of PHSE - Model Version		
1 = $1000 and over	180	3.8
2 = $400-$999	343	7.3
3 = Less Than $200	4196	88.9
4. Time Desired or Allocated for PHSE		
1 = Night - part-time	1566	33.2
2 = Night - full-time	111	2.6
3 = Day - part-time	314	6.6
4 = Day - full-time	136	2.9
5 = Weekends - part-time	112	2.4
6 = Weekends - full-time	10	0.2
7 = Not Indicated	2470	52.3
5. Time Desired - Model Version		
1 = Day	450	9.6
2 = Night and Weekends	4269	90.5
6. Type of Institution		
1 = 4 year degree	704	14.9
2 = 2 year degree	163	3.5
3 = 2 year non-degree	144	3.1
4 = Voc/Tech, Bus, Commercial	445	9.4
5 = Continuing Education	598	12.7
6 = None Indicated	2665	56.5

	No.	%
7. Type of Institution - Model Version		
1 = 4 year degree	704	14.9
2 = 2 year degree	163	3.5
3 = All Other	3852	81.6
8. Subject Desired		
1 = Business	386	8.2
2 = Engineering	246	5.2
3 = Teacher Education	175	3.7
4 = Nursing	117	2.5
5 = Medical Technology	10	0.2
6 = Art	62	1.3
7 = Music	14	0.3
8 = Home Economics	26	0.6
9 = Liberal Arts	233	4.9
10 = Agriculture	23	0.5
11 = Secretarial	45	1.0
12 = Trade and Industrial	96	2.0
13 = Adult and Continuing Education	389	8.2
14 = All Other	232	4.9
15 = None Indicated	2665	51.5
9. Years of Education		
1 = Grades 1-6	53	1.1
2 = Grades 7,8,9	540	11.4
3 = Grades 10 or 11	665	14.1
4 = Grade 12	1765	37.4
5 = Vocational or technical school	233	4.9
6 = Commercial or business school	315	6.7
7 = Graduate of a 2-year program	43	0.9
8 = One year of college	157	3.3
9 = Two years of college	194	4.1
10 = Three years of college	114	2.4
11 = Bachelor's Degree	450	9.5
12 = Master's Degree	130	2.8
13 = Doctor's Degree	60	1.3
10. Education - Model Version		
1 = Bachelor's and advanced degrees	640	13.6
2 = Some PHSE	1056	22.4
3 = High School Graduate	1765	37.4
4 = Non-High School Graduate	1258	26.7

APPENDIX C

Dwelling Unit Form

Filled out by Enumerators; one for each dwelling unit visited

BUCKS COUNTY STUDY OF POST HIGH SCHOOL

EDUCATION NEEDS 1968-1980

ICN	SIDN
2 8	A
SDCN	**MMPN**
CECN	

Dwelling Unit Summary Data Sheet for Adult Questionnaire (2.8)

N=3456 forms returned

A. Dwelling Unit chosen for sample:

Address ______________________________

B. Number of adults in dwelling unit ☐☐

C. Results of interview

		No.	%
☐	1. Obtained data on all adults	1901	55.0
☐	2. Obtained data on more than one but not all adults	166	4.8
☐	3. Obtained data on person at home - others missed	257	7.4
☐	4. No data - not at home	473	13.7
☐	5. No data - other reasons (Refused)	554 *105	16.0 *3.1

D. Number of adults for which data was not obtained ☐☐

E. Number of adults for which data was supplied by someone else ☐☐

---

* No Response By Enumerators

F. Comments:

Summary of Responses to Questions B,D,E:

Question	Enumerator Responses No.	%	Total Adults Where Enumerator Resp.	Ratio	Enumerator Non-Response
B	2667	77.2	5823	2.18 Adults/DU	789
D	580	16.8	910	-	2876
E	609	18.8	118	-	2633
C	3351	97.0	-	-	105

APPENDIX G

COMPARISON OF EDUCATIONAL
RESOURCES WITH NEEDS

Working Paper Number 7

Prepared for
Bucks County Board of School Directors

By

Government Studies Center
Fels Institute of Local and
State Government
University of Pennsylvania

March, 1968

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INTRODUCTION

This report is the seventh and last in a series of working papers prepared for the Bucks County Board of School Directors to assist in the analysis of post high school educational needs in Bucks County, Pennsylvania. Previous papers included: an estimate of future population growth by school districts, a discussion of the employment-education relationship, an estimate of educational resources in and around Bucks County, a summary of post high school educational needs of high school seniors, an estimate of educational needs of adults residing in Bucks County, and a summary of a senior follow-up survey. These papers will be used in the generation and evaluation of alternative methods of meeting unmet needs.

The Government Studies Center of Fels Institute of Local and State Government of the University of Pennsylvania is serving as consultant to the Bucks County Board of School Directors and has primary responsibility for the overall project. Government Studies Center personnel participating in this portion of the project are John K. Parker, project supervisor; Daniel J. Glanz, systems analyst; Leonard E. Ramist, graduate student in Operations Research; and Boyd Z. Palmer, research director and author of this report.

SCOPE

A special procedure was developed by the study staff to combine the data from 5 surveys and a population forecast into an estimate of unmet needs in 1967, 1975, and 1980. Estimated total numbers of Bucks County potential students with given capabilities and resources, and wanting specific subjects offered at certain kinds of institutions, were allocated among the area institutions offering the desired subjects, with given admission requirements and money needed for each type of institution. Those potential students not allocated by the computational procedure, which simulated in a general way the competitive aspect of gaining admission to many post high school educational institutions, were labelled as "unmet needs" for that course of study, and for a particular type of institution.

This report describes the computational procedure in broad outline only, and presents the results obtained when all parameters (variables that remain at pre-set values during a computation) were determined by the best judgment of the study staff.

A technical report will soon be available, describing the computational procedure in minute detail, and including a copy of each computer program, written in FORTRAN IV programming language. All relevant computer output, data cards, and data tapes will be available at Fels Institute, University of Pennsylvania.

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SUMMARY

Estimated Bucks County residents' needs for post high school education (PHSE) are about 4,700 in 1967, increasing to about 7,300 in 1980; these figures are about 20% of estimated total demand for PHSE in 1967 and about 18% of total demand in 1980. All estimates of unmet need are heavily dependent on whether projected large additions to resource capacity actually become available; if not, unmet needs will be correspondingly larger.

Significant areas of unmet needs were identified as: (1) both daytime and evening programs in Teacher Education in 4 year degree and 2 year degree institutions, (2) daytime Liberal Arts programs in 4 year degree and 2 year degree institutions, and (3) various courses in evening non-transfer vocational-technical programs.

Particularly strong needs seem to exist for a 4 year degree institution convenient for Bucks County residents, and for Teacher Education degree credit courses at times when residents are able to attend.

DESCRIPTION OF VARIABLES

A. Variables

Eight variables, not subject to direct control by an education administration, were selected as being most important in an individual's decision to attend some form of post high school education:

1. Type of individual (High school senior, or Adult)
2. Motivation (Strength of Expectation)
3. Desired subject
4. Desired time of day (Day or Evening)
5. Capability for PHSE
6. Commuting distance
7. Desired type of institution
8. Money available

High school seniors, and adults residing in Bucks County, were surveyed to obtain information about interest in, plans for, and participation in, post high school education. A value (or category) was decided on for each of the eight variables of interest, for each individual surveyed as explained in previous working papers. All the individuals were sorted into a basic set of 108 classes (based on the last 4 variables) which formed part of the input data to the computational procedure. This data was put on magnetic computer tape, and as it was read into computer memory, corrections were made to adjust sample values to population estimates, and to allow for population growth if a projection to 1975 or 1980 were needed.

Three other variables were used, at least one of which was considered controllable to some extent by education administrators (though not necessarily Bucks County administrators):

1. Enrollment capacity (first year degree-credit college enrollment, or total enrollment for non-college schools). This variable was deemed changeable since classroom space, teacher availability, and course offerings can be altered by most schools.
2. Applications received by area institutions from prospective first year students.
3. Acceptances sent to students by institutions offering PHSE. This was also considered controllable, although it is highly dependent on the enrollment capacity.

A survey of area institutions obtained estimates for these three variables for each institution, and another input data tape was prepared with the enrollment capacities, applications, and acceptances sorted into the same basic classes as on the student into tape.

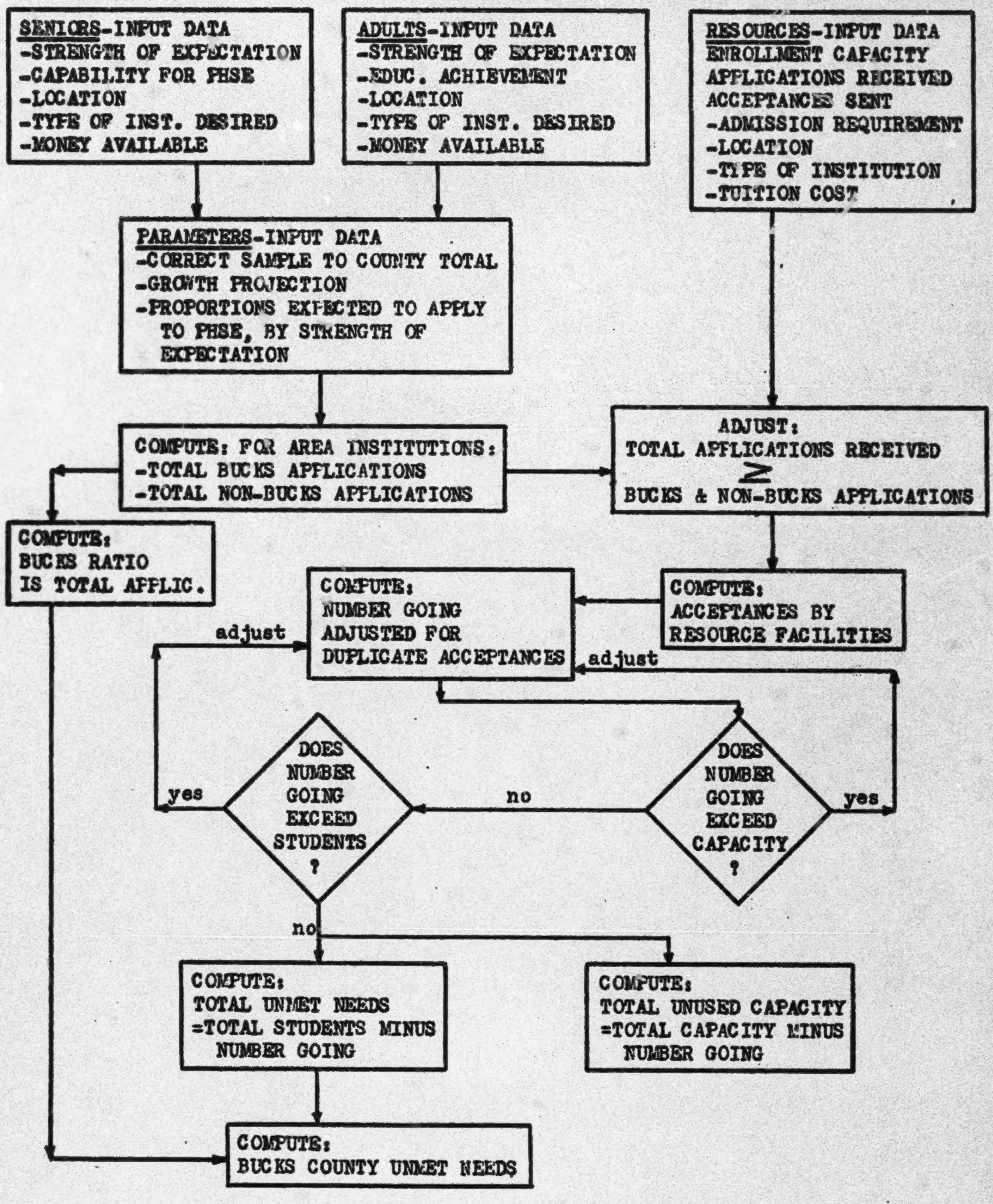
B. Allocation Procedure

Exhibit A shows, in flowchart form, the general procedure followed by the computer program which matched students with available resources, and assigned students to resources according to several decision rules. Essentially, the computational procedure simulates the competitive aspect of gaining admission to college, by estimating how Bucks County students would fare when their applications may be only a few of the many received by area institutions.

The input data to the computation procedure was broken down by particular subjects offered either in the day or evening. This implies that individuals will be uncompromising about the subject-time they want, but will change their desires about cost, location, type of institution, and admission requirements. Thus, students wanting an evening business program might be willing to go to an institution requiring more or less money than they had, would go to a different area than their own location, and would possibly go to a different institutional type with different admission requirements, as long as it offered an evening business program. No shifting was allowed, for example, to a business day program, or an evening engineering program.

EXHIBIT "A" - FLOWCHART OF GENERAL ALLOCATION PROCEDURE

FOR A GIVEN SUBJECT-TIME-YEAR COMBINATION


SENIORS-INPUT DATA
-STRENGTH OF EXPECTATION
-CAPABILITY FOR PHSE
-LOCATION
-TYPE OF INST. DESIRED
-MONEY AVAILABLE
ADULTS-INPUT DATA
-STRENGTH OF EXPECTATION
-EDUC. ACHIEVEMENT
-LOCATION
-TYPE OF INST. DESIRED
-MONEY AVAILABLE
RESOURCES-INPUT DATA
ENROLLMENT CAPACITY
APPLICATIONS RECEIVED
ACCEPTANCES SENT
-ADMISSION REQUIREMENT
-LOCATION
-TYPE OF INSTITUTION
-TUITION COST
PARAMETERS-INPUT DATA
-CORRECT SAMPLE TO COUNTY TOTAL
-GROWTH PROJECTION
-PROPORTIONS EXPECTED TO APPLY TO PHSE, BY STRENGTH OF EXPECTATION
COMPUTE: FOR AREA INSTITUTIONS:
-TOTAL BUCKS APPLICATIONS
-TOTAL NON-BUCKS APPLICATIONS
ADJUST:
TOTAL APPLICATIONS RECEIVED ≥ BUCKS & NON-BUCKS APPLICATIONS
COMPUTE: BUCKS RATIO IS TOTAL APPLIC.
COMPUTE: NUMBER GOING ADJUSTED FOR DUPLICATE ACCEPTANCES
COMPUTE: ACCEPTANCES BY RESOURCE FACILITIES
adjust
adjust
DOES NUMBER GOING EXCEED STUDENTS ?
yes
no
DOES NUMBER GOING EXCEED CAPACITY ?
yes
no
COMPUTE: TOTAL UNMET NEEDS =TOTAL STUDENTS MINUS NUMBER GOING
COMPUTE: TOTAL UNUSED CAPACITY =TOTAL CAPACITY MINUS NUMBER GOING
COMPUTE: BUCKS COUNTY UNMET NEEDS

The outputs of the computations, as shown in Exhibit A, are the "unmet needs", the "unused capacity" and the "number going." These outputs can be influenced in several ways for any given subject-time-year combination:

1. Add more resource enrollment capacity to any specific one of the 108 basic categories. This can simulate the decision of a school administration to alter the resources by expanding an existing facility, adding a subject course to an existing facility, or building a new institution.
2. Change the number of applications received; for example, to simulate an increase in competition for the available resource capacity.
3. Change the number of Bucks applicants; for example, to investigate the effects on unmet needs of a concentrated "go-to-college" campaign.
4. Change some parameter values built into the computer program; for example, the proportion of seniors in strength class 3 that will apply for PHSE.

The parameters which influence the outputs have been set at values which represent the best judgement of the study staff. It is hoped that periodic revision and updating of the study will provide data for changing the parameter values when and if conditions change.

RESULTS

A. Summary Procedure

Two computer runs were made, allocating resource capacity to Bucks and non-Bucks students in 1967, 1975, and 1980. One run made all resouce capacity in Bucks County and the surrounding commuting area available to Bucks County residents; the other run only allowed resource capacity within Bucks County to be available to county residents - this was done primarily to check the allocation procedure. A brief summary of output data from that run is shown in Appendix A, Table 6.

Appendix A also contains tables showing the basic input data derived from 5 surveys and the population projections, and some basic output data from the main computer run. The output data has been summarized in this section in 14 bar charts which will be discussed in turn.

B. Total Demand and Total Unmet Needs

Figure 1 shows estimates of total Bucks County demand for post high school education - equivalent to "total student" input data as shown in Table 1 - together with the output data estimates of "number going" and "unmet needs." The dotted line emphasizes the relationship of the estimated unmet needs to the capacity increases which were projected through 1980, based on institutional responses to questionnaires asking for planned capacity increases through 1971. Thus, total demand is estimated to increase from 23,200 in 1967 to 41,000 in 1980 while the estimated "number going" from Bucks County increases from 18,400 in 1967 to 33,700 in 1980. The resulting unmet needs also increase, from about 4,800 in 1967 to 7,300 in 1980, but the unmet needs become a smaller proportion of total demand.

The changes shown in all the Figures may perhaps be explained more clearly by referring to percentage changes, as shown in Appendix Table 8. The input data assume increases of 77.2% in total students and 102.9% in total capacity, from 1967 to 1980; not all of the added capacity is available to Bucks County residents, but the allocation procedure allows total "number going" to increase by 83.1% from 1967 to 1980, somewhat more than the rate of increase of total students. The net result is that unmet needs increase at a slower rate than total students: 54.1% from 1967 to 1980. Obviously, if capacity does not essentially double from 1967 to 1980, then unmet needs may be much larger.

Demand for evening programs, and total evening capacity are far larger than similar figures for day programs, but unmet needs constitute about 40% of total demand, and only 12% to 15% of evening demand. Our data thus indicate that institutions providing evening programs are planning very rapid expansion, but the number of people wanting day programs are growing at a slightly faster rate than numbers of people wanting evening programs; therefore, unmet needs will stay relatively much more important for day programs than for evening (see Figures 2 and 6).

BUCKS POST HIGH SCHOOL EDUCATION STUDY

FIGURE 1

ESTIMATED TOTAL DEMAND FOR PHSE

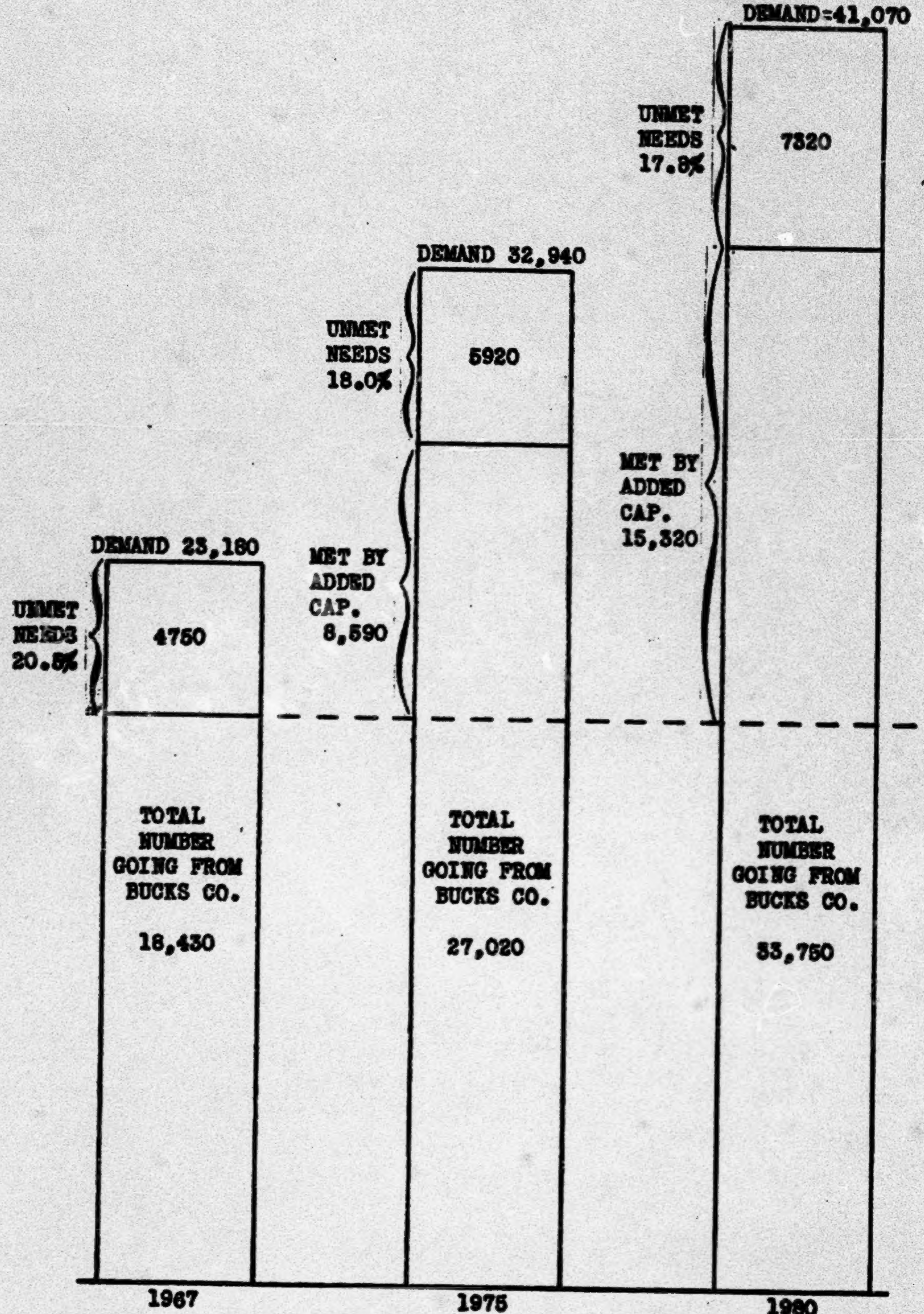


FIGURE 2

ESTIMATED DAY AND EVENING DEMAND FOR PHSE

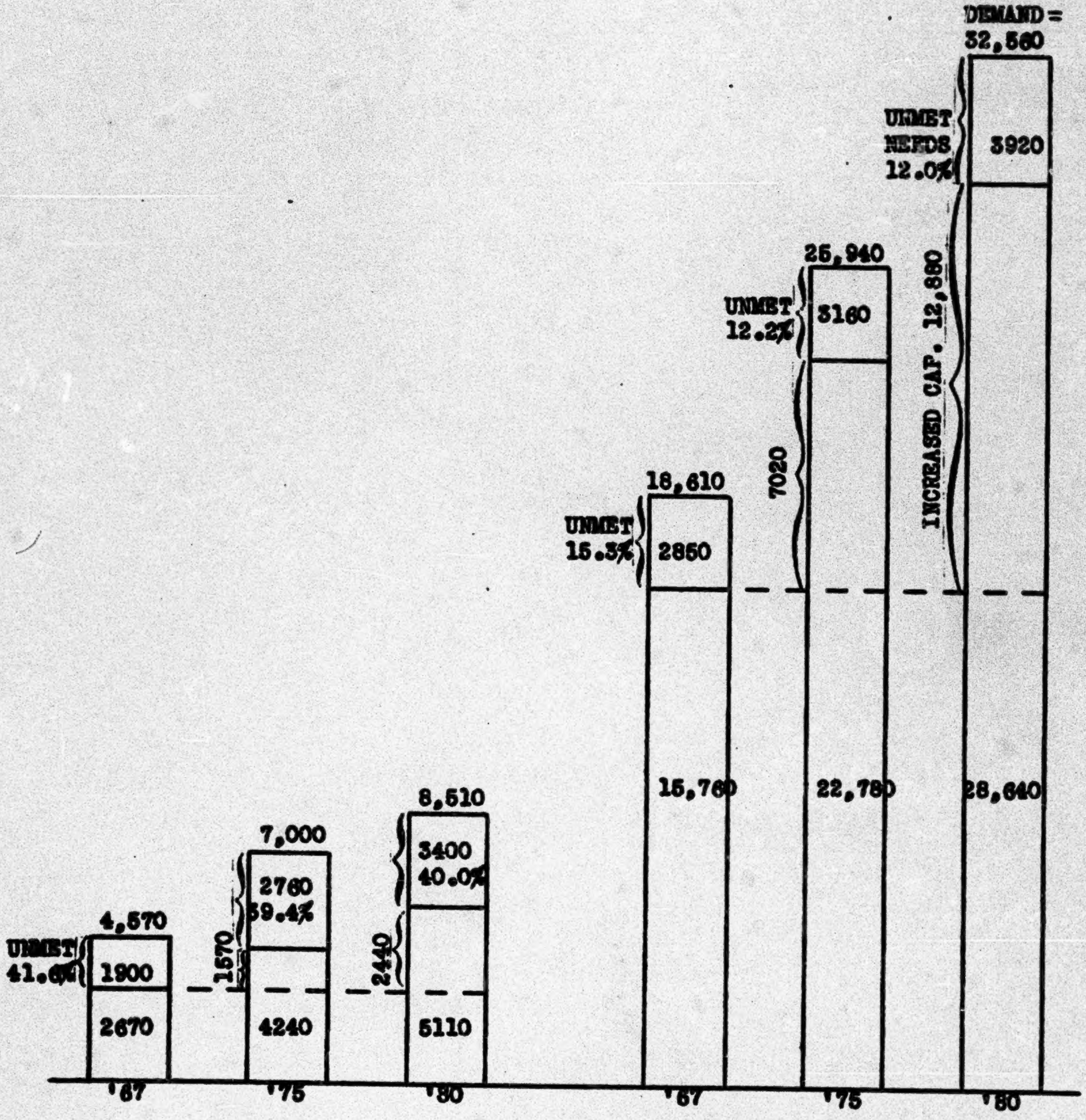


FIGURE 3

ESTIMATED DEMAND FOR 4 YEAR DEGREE PROGRAMS

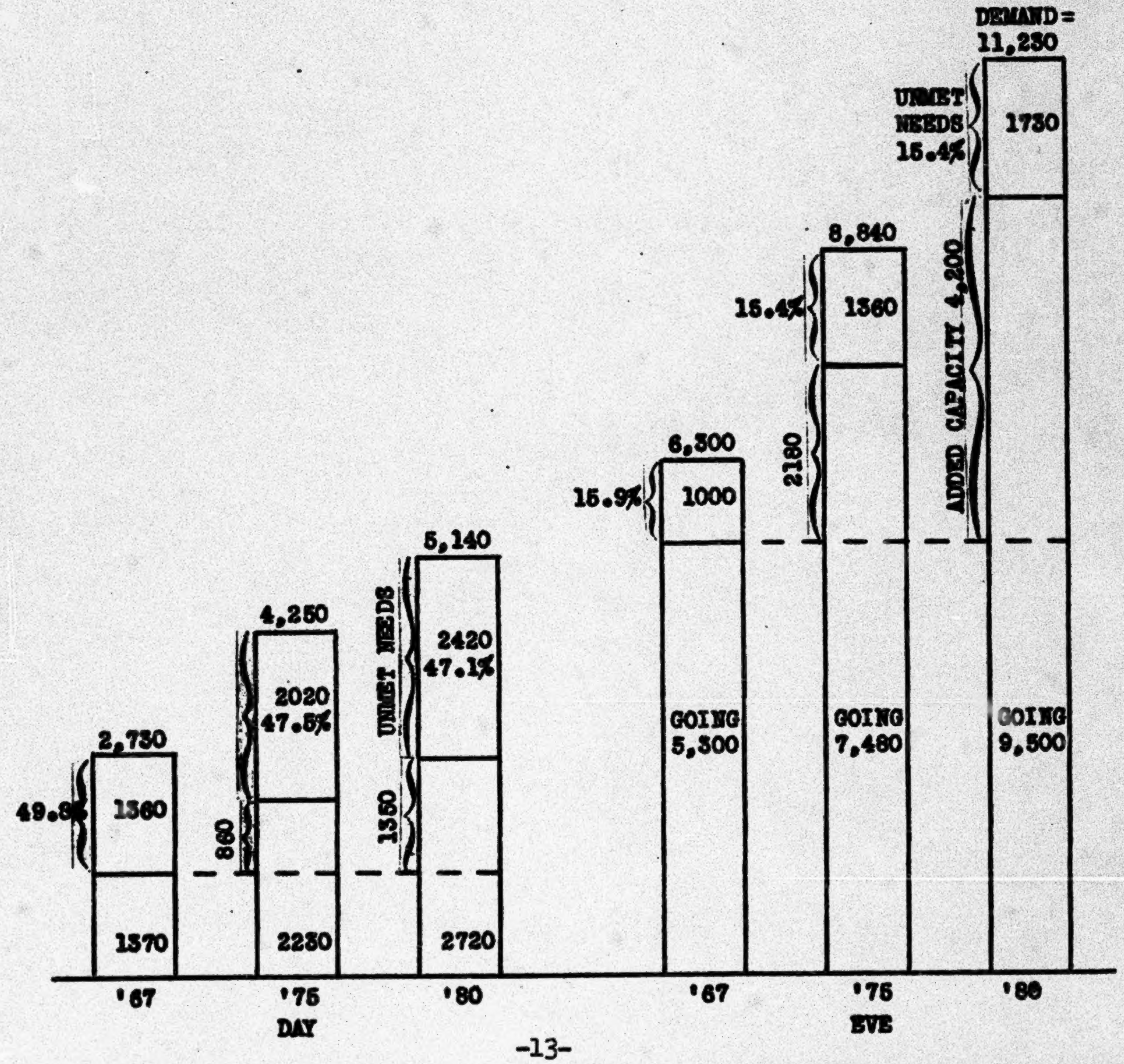


FIGURE 4

ESTIMATED DEMAND FOR 2 YEAR AND TRANSFER PROGRAMS

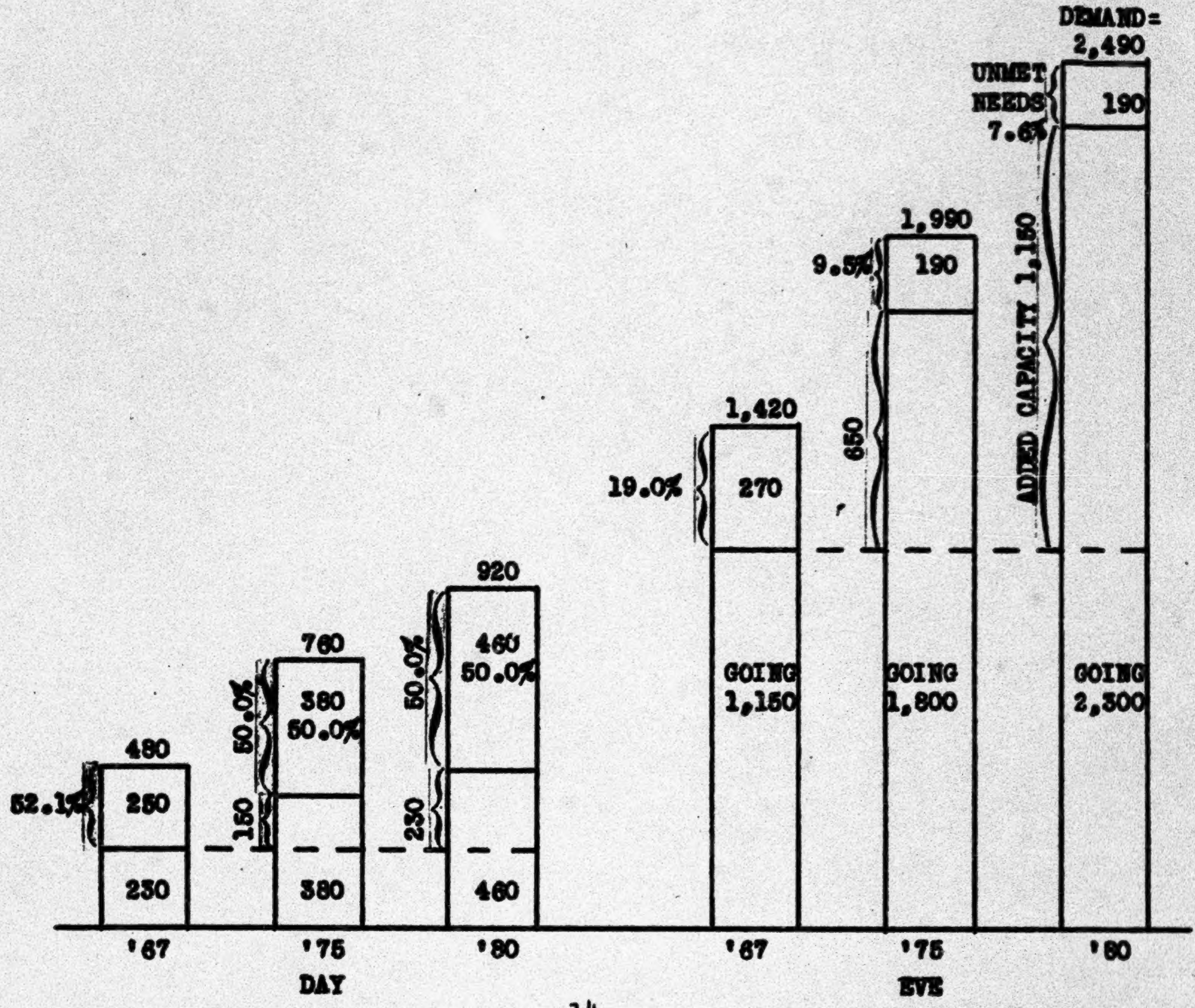


FIGURE 5

ESTIMATED DEMAND FOR NON-TRANSFER PROGRAMS

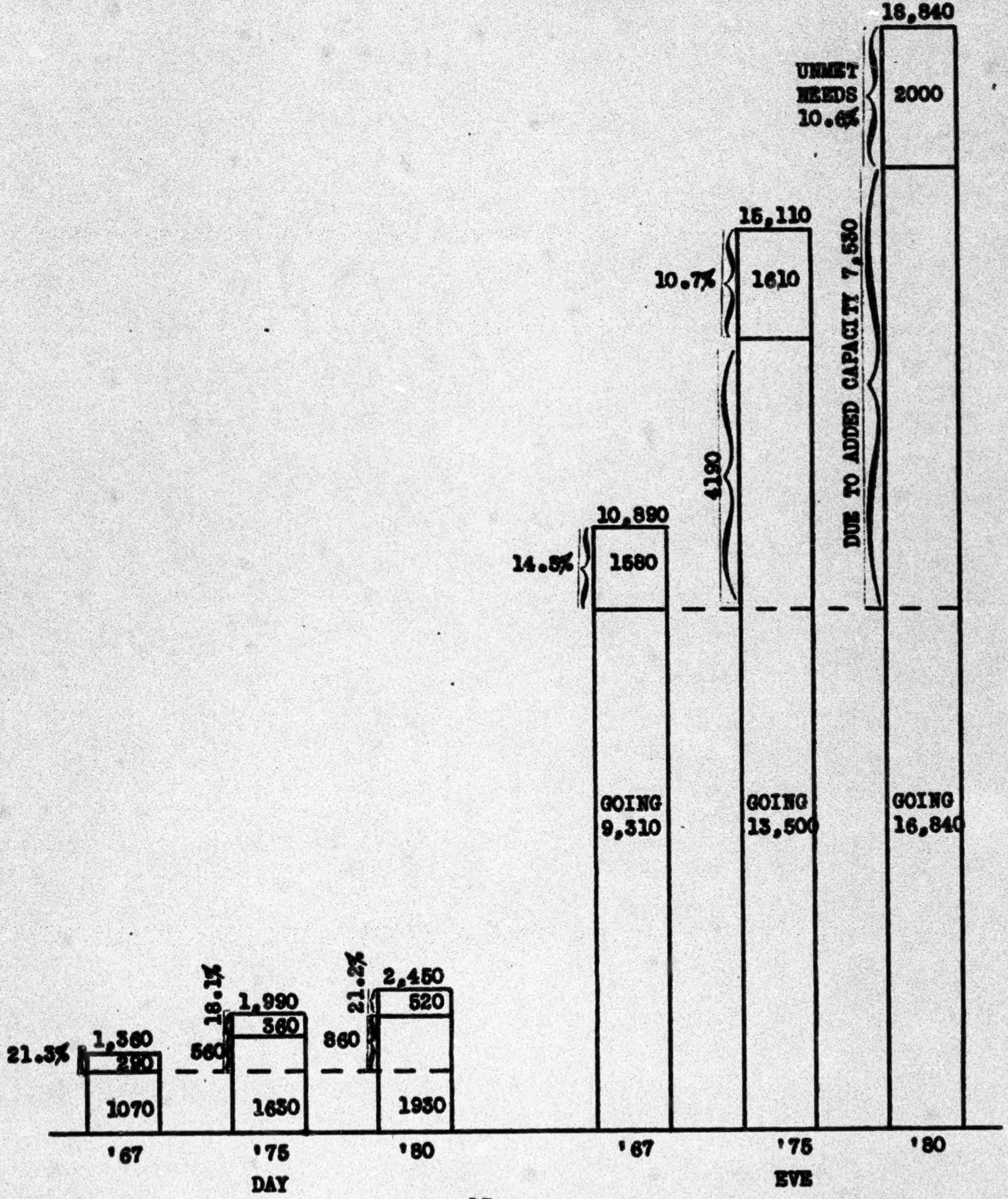
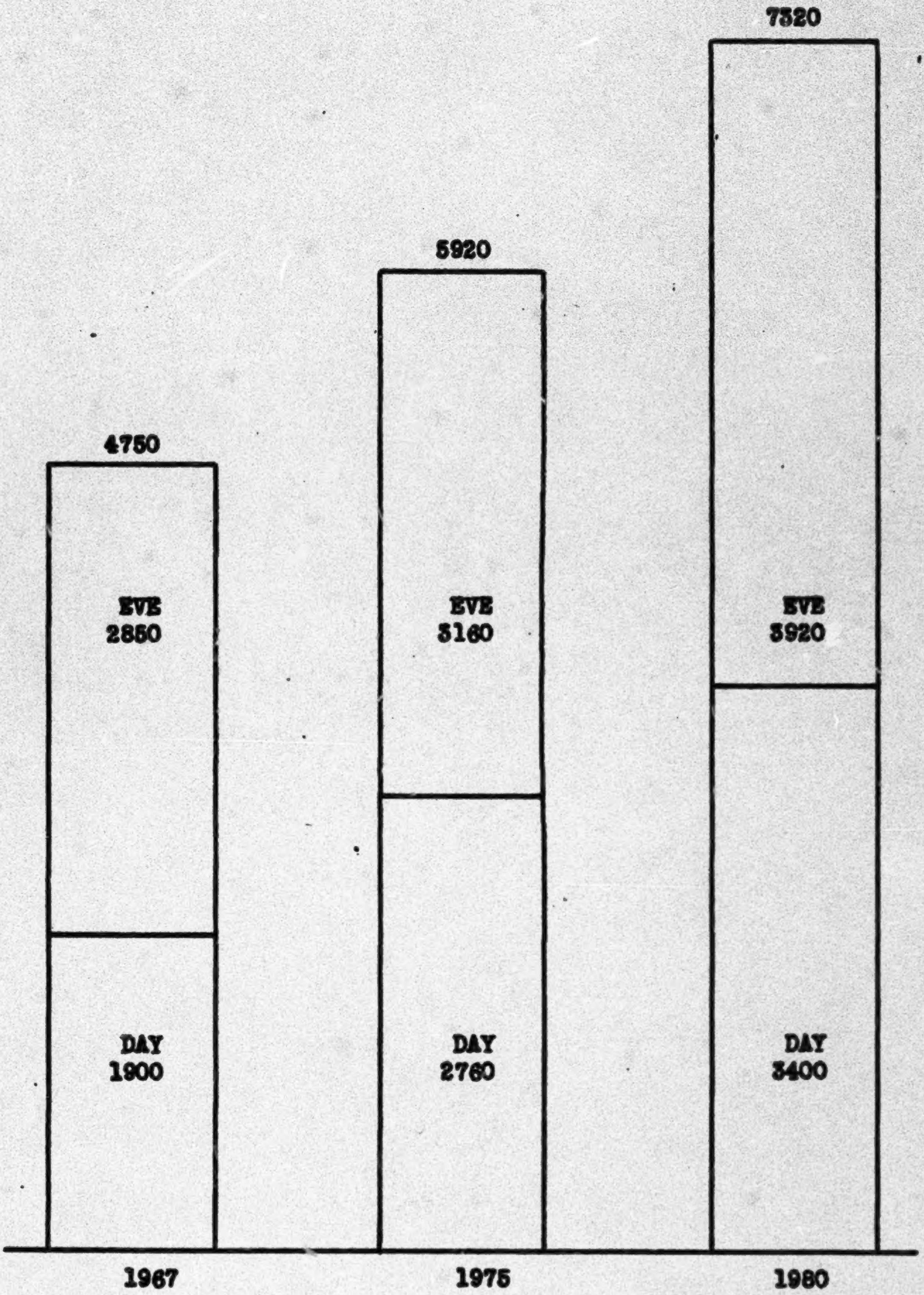


FIGURE 6

ESTIMATED TOTAL UNMET NEEDS, BY DAY-EVENING



C. Demand and Unmet Needs, By Institutional Program

Figures 3-5, and 7-8 show different aspects of the data classified by 4 year degree, 2 year degree and transfer, and non-transfer programs. Very large percentage increases in 2 year degree, and non-transfer program capacities (particularly evening programs) keep the unmet needs from increasing at a fast rate, and even decrease unmet needs for 2 year degree evening programs. Much of the indicated gains in 2 year degree evening capacity is simply not available to Bucks County residents, otherwise the estimated unmet needs would probably disappear altogether.

In terms of numbers of people and spaces, the main need appears to be for more 4 year degree programs (see Figure 7 especially), with day programs more important than evening. Our data indicates substantial unmet needs also for evening non-transfer programs, but the needs there only constitute 10% of demand, vs. 47% of demand for daytime 4 year degree programs and 50% of demand for daytime 2 year degree and transfer programs.

FIGURE 7

ESTIMATED UNMET NEEDS BY DESIRED PROGRAM, AND DAY-EVENING

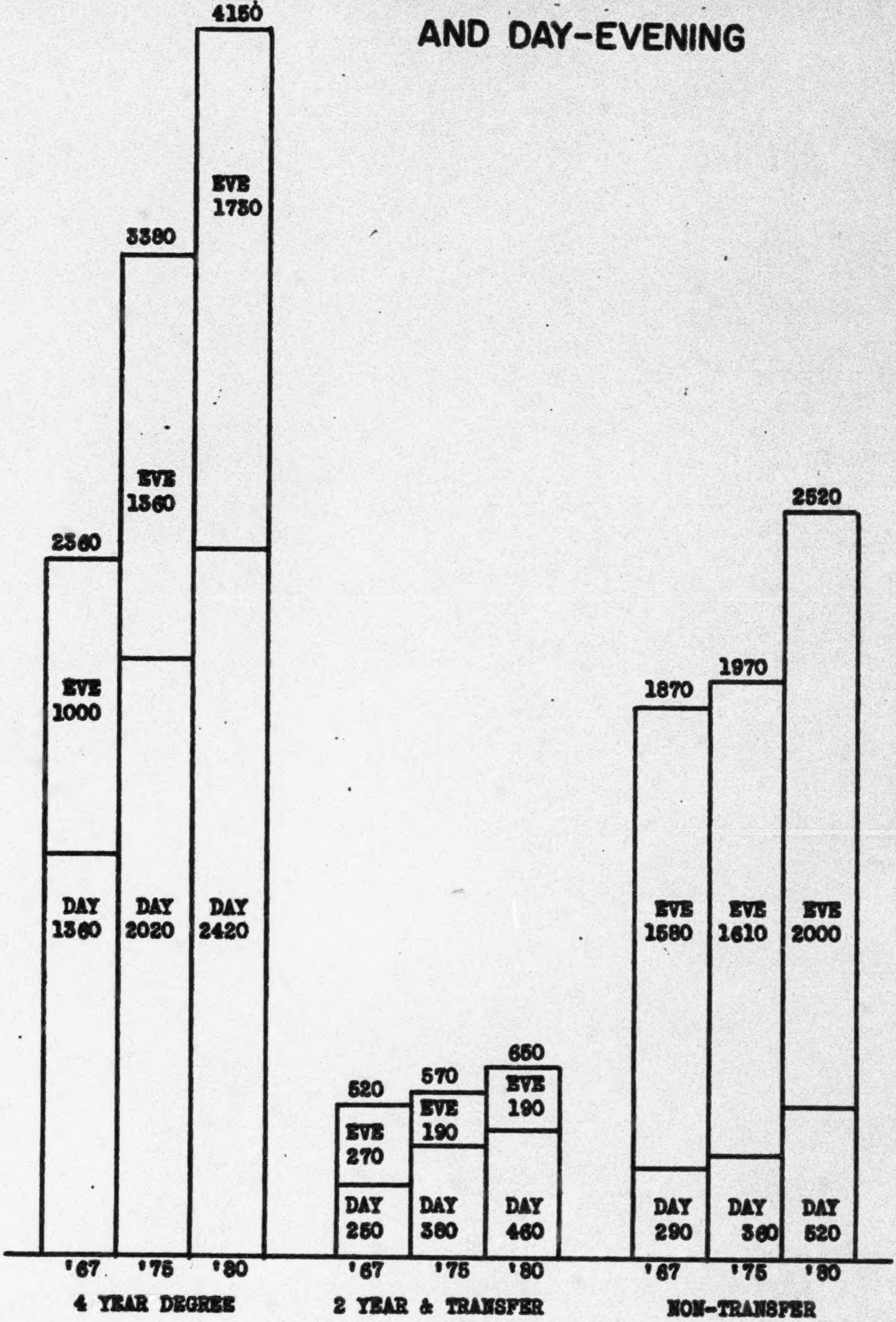
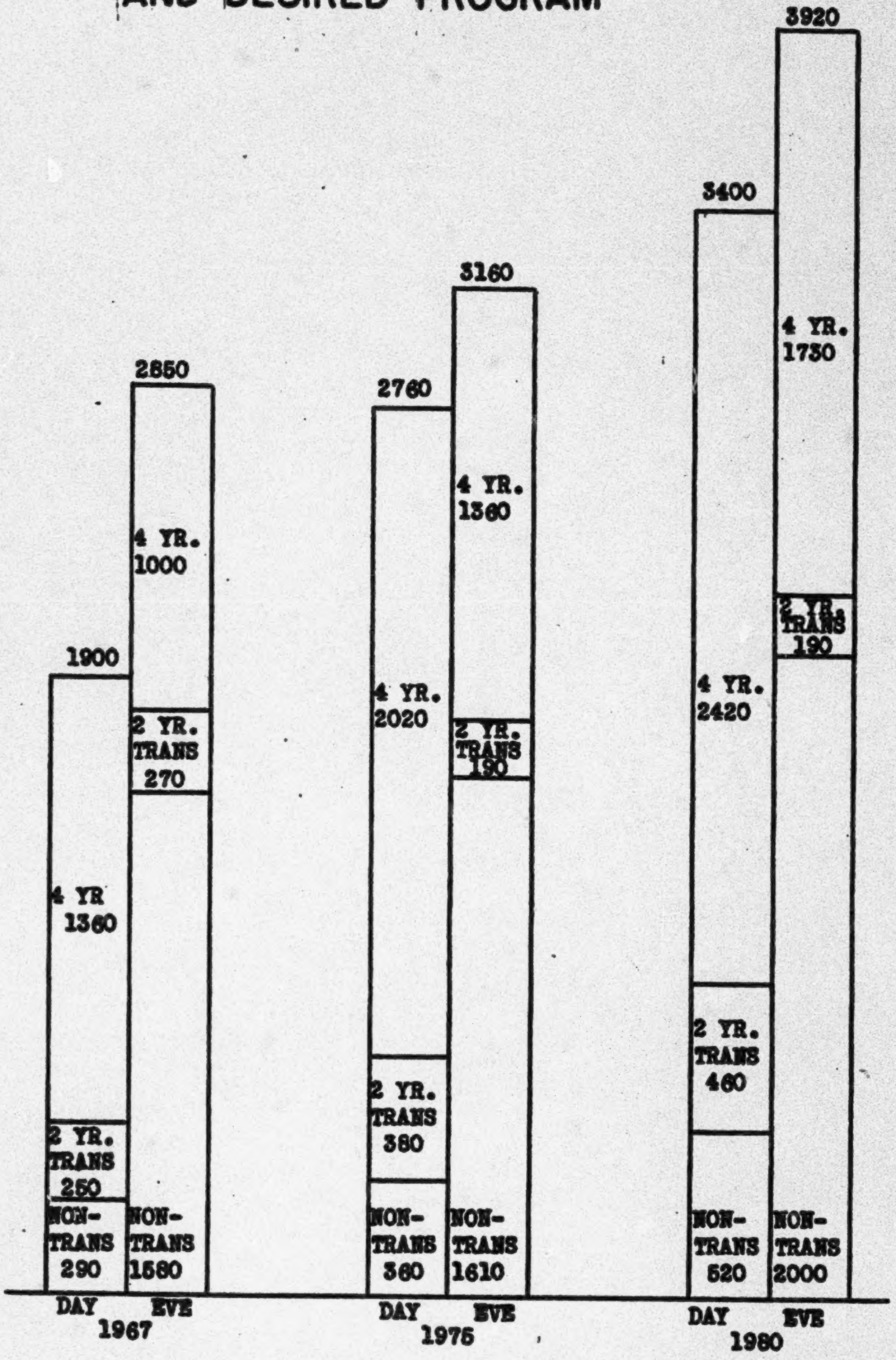


FIGURE 8

ESTIMATED UNMET NEEDS BY DAY-EVENING, AND DESIRED PROGRAM



D. Unmet Needs, By Desired Subject

Figures 9-13, based on Appendix Table 7, show further breakdowns of "unmet needs" output data, to determine the particular subjects that prospective students want that apparently are not available to them, either because of lack of capacity, or because the characteristics of student and institution do not match. Figure 13, in particular, illustrates the most important needs in terms of absolute numbers: the greatest need appears to be for a variety of evening vocational-technical courses, offered as part of a 2 year terminal program or separate private courses. However, there is no way to tell from the data whether any specific courses would fill a large part of this demand; the desires originated from answers 33 and 40 on question 22 of both the senior and adult survey questionnaires (working papers 4 and 5) the answers are "other 2 year non-degree" and "other vocational-technical." Further surveys will be needed to obtain more detail on desires for these types of evening courses.

This leaves the other major unmet needs as daytime Liberal Arts, and both day and evening programs in Teacher Education. Both subjects are desired as part of 4 year degree programs and 2 year degree and transfer programs, with largest numerical values in the 4 year degree category. Detailed results of the allocation procedure indicate that many "matchings" were not made on evening teacher education programs because the prospective applicants were too highly qualified for the few resources available. Desires for 2 year credit evening teacher education programs from Bucks County residents alone were almost three times the entire area capacity in that classification. Undoubtedly, many such people switch to another subject category, or take some non-credit but related courses.

FIGURE 9

ESTIMATED UNMET NEEDS BY DAY-EVENING, AND DESIRED SUBJECT

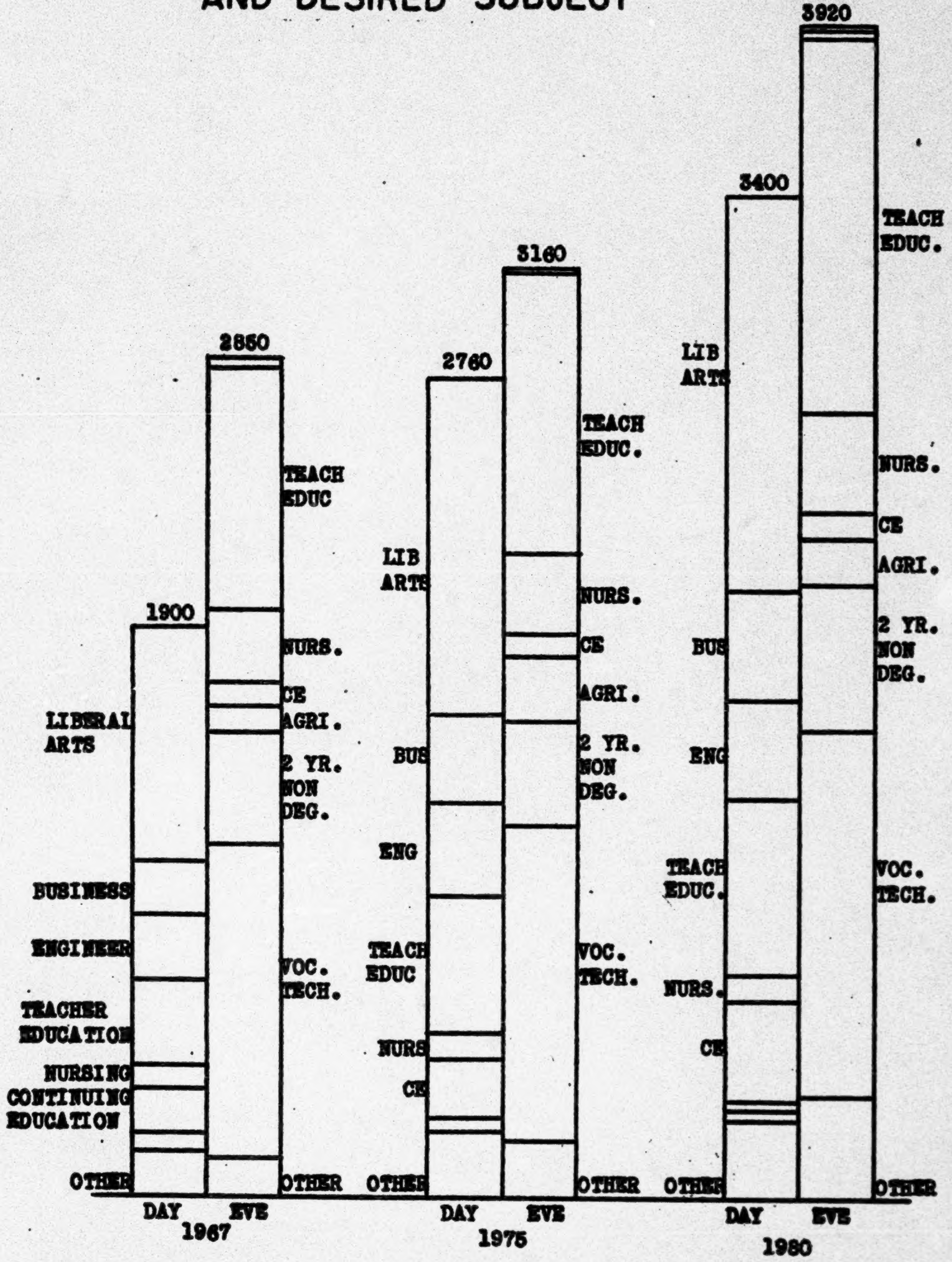


FIGURE 10

4 YEAR DEGREE PROGRAM UNMET NEEDS, BY DAY-EVENING, DESIRED SUBJECT

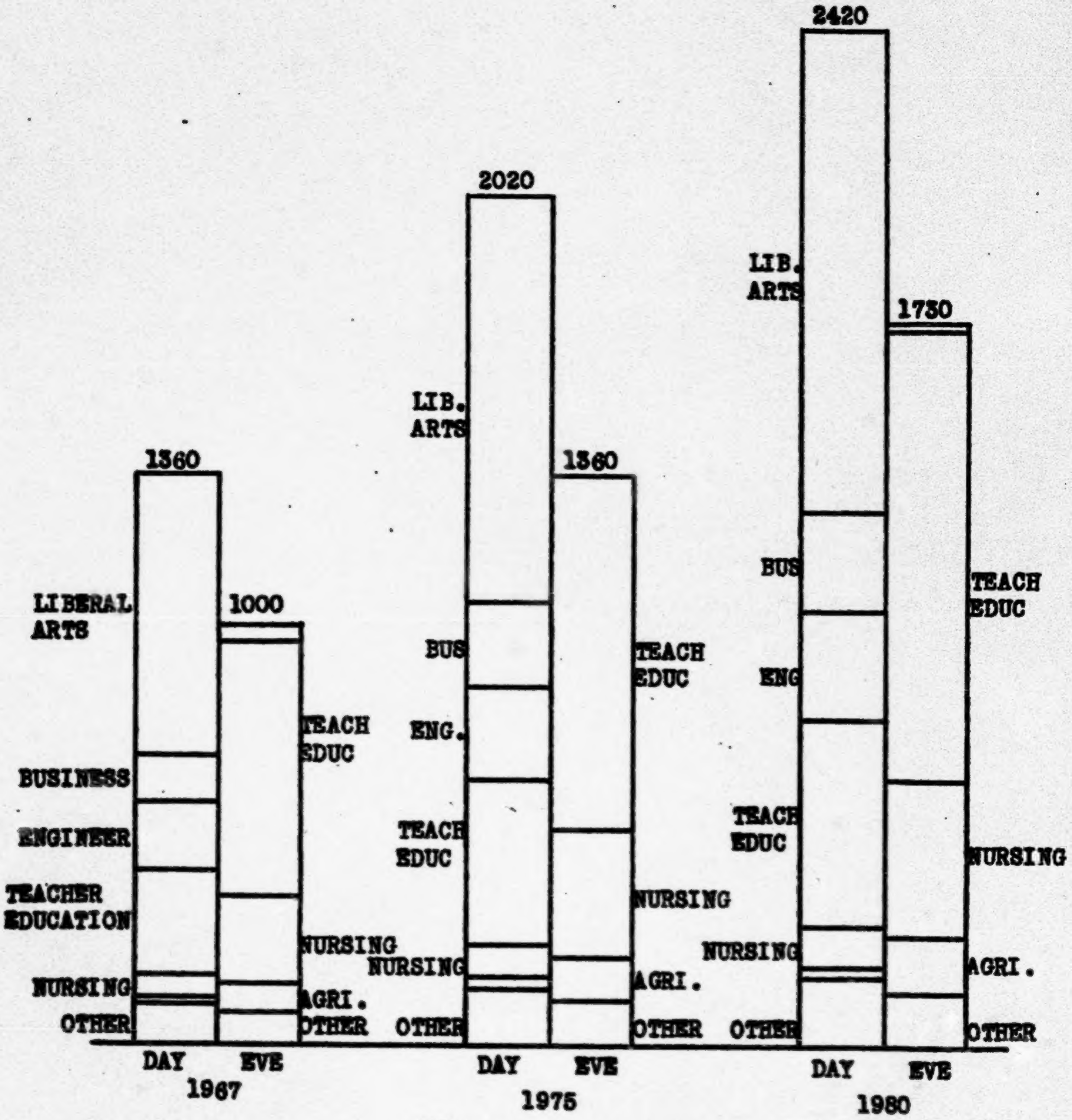


FIGURE 11

2 YEAR AND TRANSFER PROGRAMS UNMET NEEDS, BY DAY-EVENING, DESIRED SUBJECT

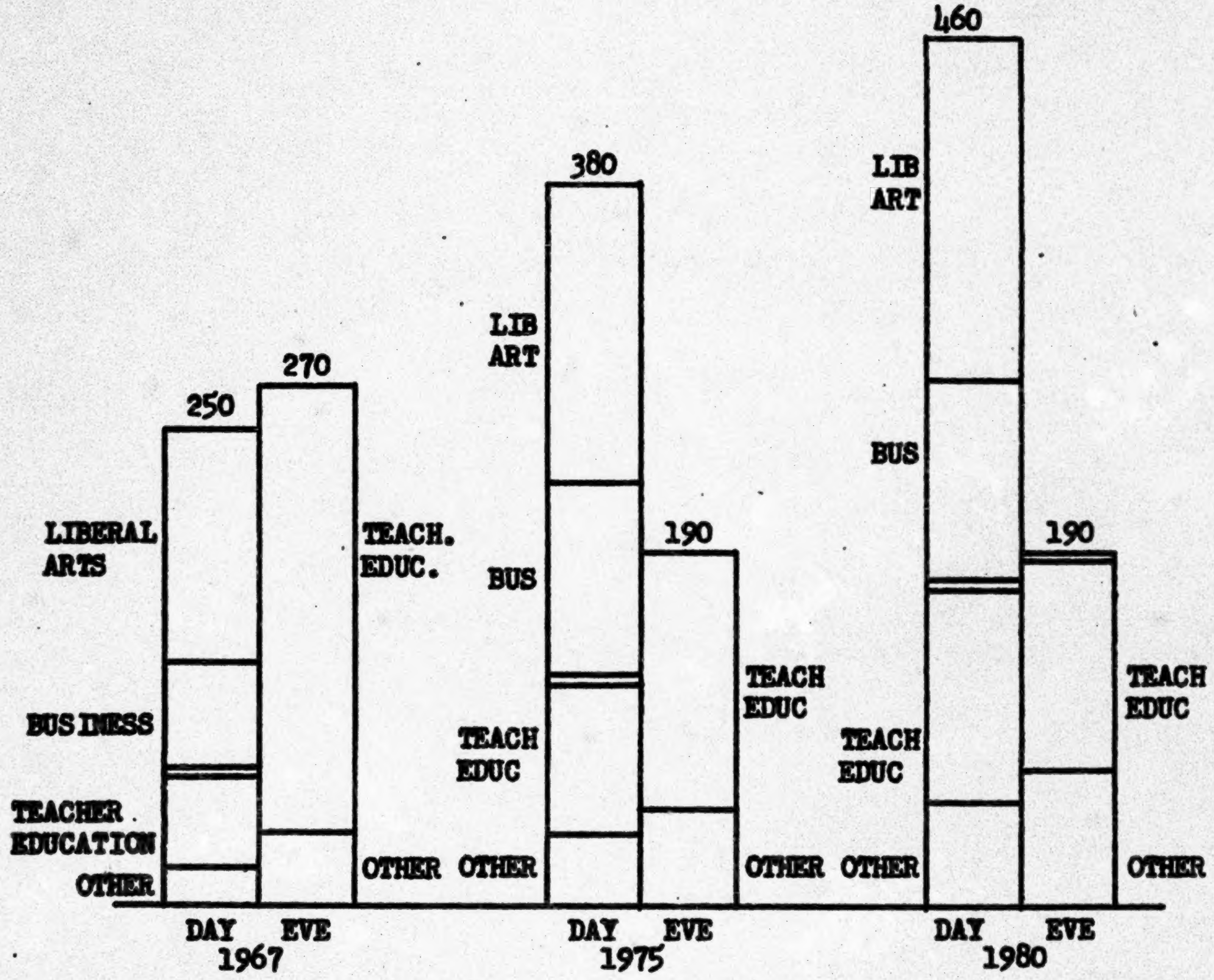


FIGURE 12

NON-TRANSFER PROGRAM UNMET NEEDS, BY DAY-EVENING, DESIRED SUBJECT

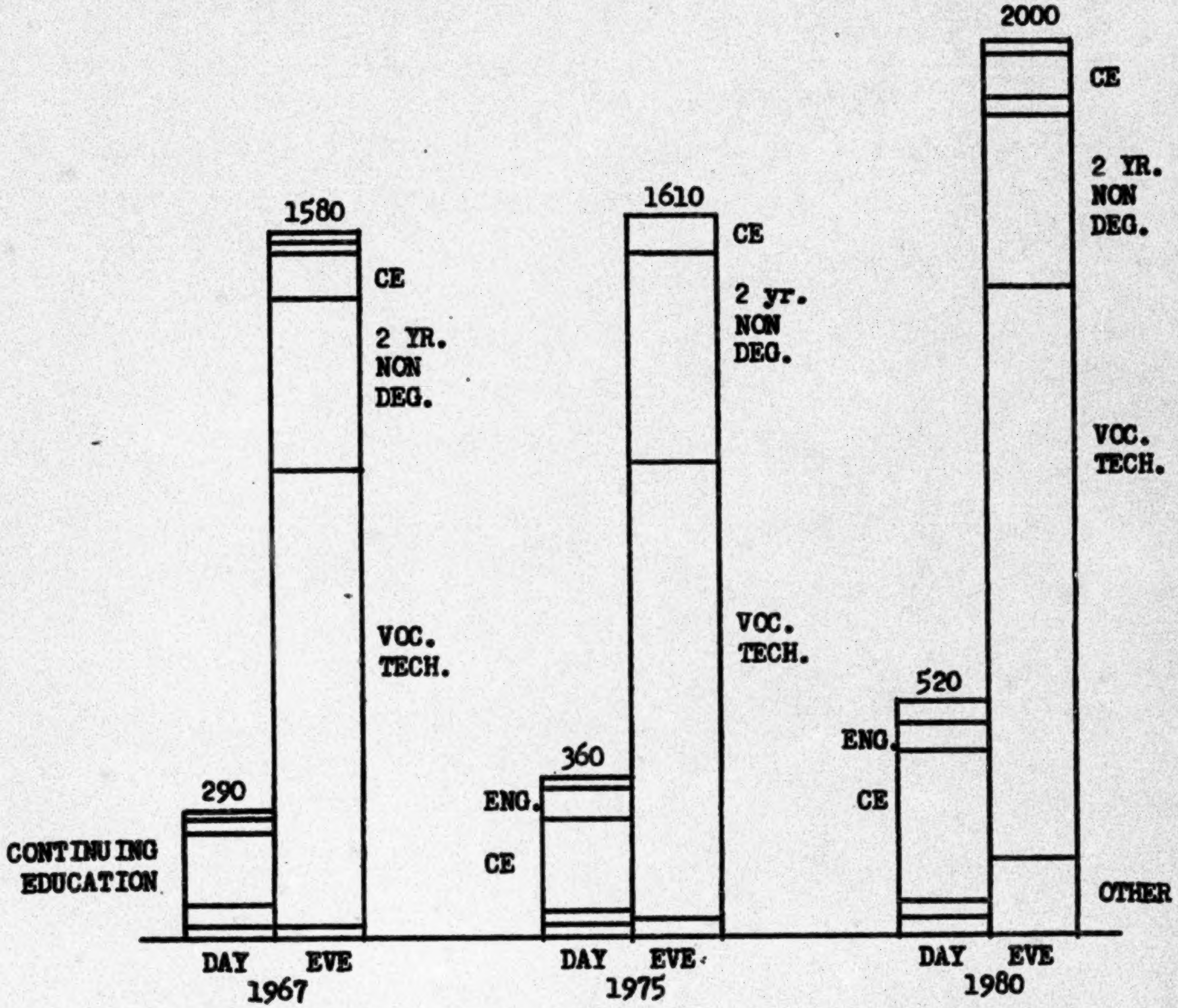
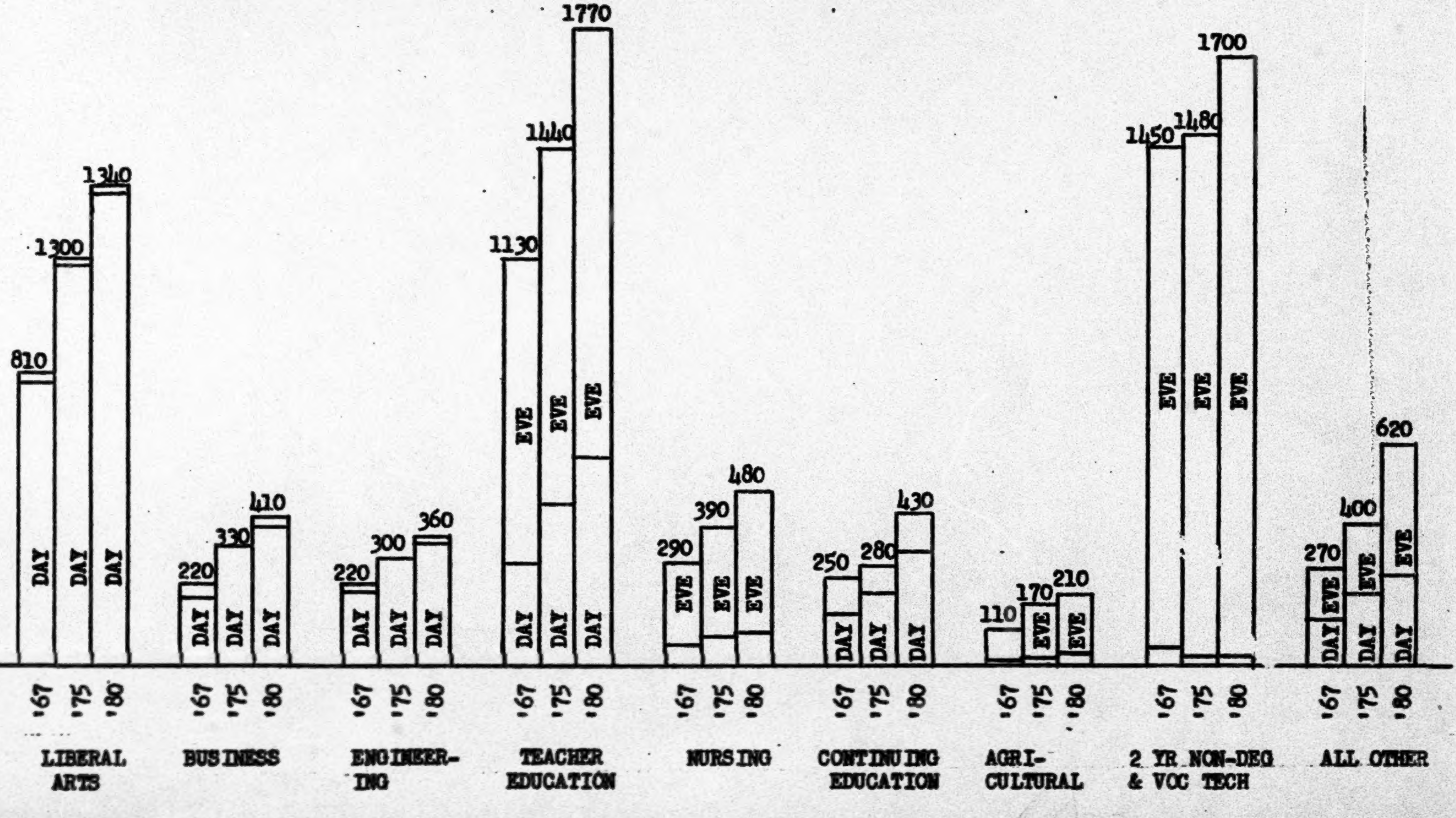


FIGURE 13

ESTIMATED UNMET NEEDS, BY DESIRED SUBJECT, DAY-EVENING



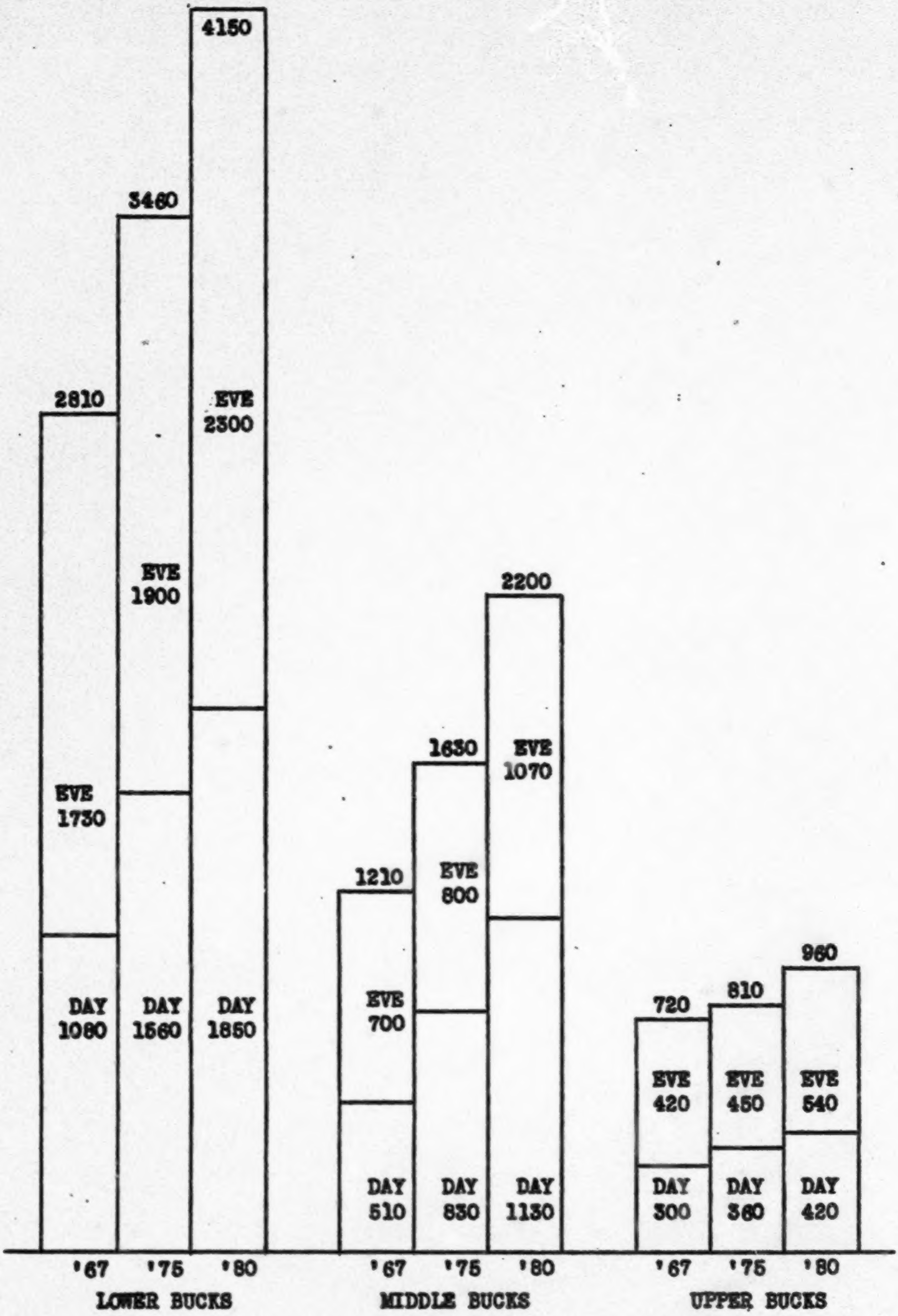
It should be noted that, because of the tendency of adults favoring education to respond more readily to the adult sample survey than adults who are not interested in further education, it is likely that the results overestimate desires for such traditional college subjects as Liberal Arts and Teacher Education, and underestimate demand for subjects such as Trade and Industrial, and Continuing Education. Continuing Education courses, in particular, may not be "desired" until a person sees an interesting course listed in a newspaper or mail announcement - thus many adults would not respond positively to the survey, yet may very well show up for an adult education class during the next year. However, despite these "caveats", the study staff believes the areas of unmet need identified are genuine and should be considered seriously; any adjustments that might be made, if proper data were available, would not appreciably alter the overall pattern of unmet needs. Unused capacity data given in detailed computer outputs were sufficient for the Continuing Education category to absorb underestimates, while the fact that no excess capacity was shown for Teacher Education and Liberal Arts programs clearly indicates significant unmet needs in these areas.

E. Unmet Needs by County Region

Figure 14 shows day-evening unmet needs for Lower, Middle, and Upper Budks commuting areas; these needs are approximately proportional to the total population in each region, though unmet needs in the Upper Bucks area are a slightly larger proportion of the total than would be anticipated from population distribution alone.

FIGURE 14

ESTIMATED UNMET NEEDS BY COUNTY REGION



APPENDIX A

DATA TABLES

TABLE 1. BASIC INPUT DATA
WHOLE AREA

			1967			1975			1980	
		Day	Eve.	Total	Day	Eve.	Total	Day	Eve.	Total
Total Students	4 Yr.	2,730	6,300	9,030	4,250	8,840	13,090	5,140	11,230	16,370
	Transf.	480	1,420	1,900	760	1,990	2,750	920	2,490	3,410
	Non-Tr.	1,360	10,890	12,250	1,990	15,110	17,100	2,450	18,840	21,290
	Total	4,570	18,610	23,180	7,000	25,940	32,940	8,510	32,560	41,070
Adults	4 Yr.	1,100	6,060	7,160	1,530	8,470	10,000	1,940	10,830	12,770
	Transf.	150	1,330	1,480	210	1,850	2,060	270	2,340	2,610
	Non-Tr.	920	9,890	10,810	1,270	13,570	14,840	1,620	17,180	18,800
	Total	2,170	17,280	19,450	3,010	23,890	26,900	3,830	30,350	34,180
Seniors	4 Yr.	1,630	240	1,870	2,720	370	3,090	3,200	400	3,600
	Transf.	330	90	420	550	140	690	650	150	800
	Non-Tr.	440	1,000	1,440	720	1,540	2,260	830	1,660	2,490
	Total	2,400	1,330	3,730	3,990	2,050	6,040	4,680	2,210	6,890
Students, Lower Bucks	4 Yr.	1,460	3,390	4,850	2,280	4,630	6,910	2,670	5,660	8,330
	Transf.	300	1,000	1,300	470	1,370	1,840	550	1,670	2,220
	Non-Tr.	770	6,950	7,720	1,130	9,500	10,630	1,340	11,580	12,920
	Total	2,530	11,340	13,870	3,880	15,500	19,380	4,560	18,910	23,470
Students, Middle Bucks	4 Yr.	840	2,250	3,090	1,410	3,390	4,800	1,840	4,600	6,440
	Trans.	150	350	500	260	540	800	330	720	1,050
	Non-Tr.	400	2,610	3,010	630	3,950	4,580	840	5,320	6,160
	Total	1,390	5,210	6,600	2,300	7,880	10,180	3,010	10,640	13,650
Students, Upper Bucks	4 Yr.	430	660	1,090	560	820	1,380	630	970	1,600
	Trans.	30	70	100	30	80	110	40	100	140
	Non-Tr.	190	1,330	1,520	230	1,660	1,890	270	1,940	2,210
	Total	650	2,060	2,710	820	2,560	3,380	940	3,010	3,950

TABLE 1 (Con't). BASIC INPUT DATA

		1967			1975			1980		
		Day	Eve.	Total	Day	Eve.	Total	Day	Eve.	Total
Capacity	4 Yr.	17,430	36,570	54,000	21,380	45,270	66,650	23,340	51,130	74,470
Bucks	Transf.	5,140	3,220	8,360	11,020	9,750	20,770	14,580	14,100	28,680
County	Non-Tr.	13,540	22,670	36,210	23,650	49,340	72,990	30,000	66,850	96,850
Area	Total	36,110	62,460	98,570	56,050	104,360	160,410	67,920	132,080	200,000
Capacity	4 Yr.	9,370	32,400	41,770	10,370	38,370	48,740	10,930	42,350	53,280
Lower	Transf.	2,450	2,390	4,840	6,420	6,910	13,330	9,070	10,040	19,110
Bucks	Non-Tr.	12,090	16,390	28,480	20,730	38,520	59,250	26,180	53,370	79,550
Area	Total	23,910	51,180	75,090	37,520	83,800	121,320	46,180	105,760	151,940
Capacity	4 Yr.	4,390	1,650	6,040	6,050	3,250	9,300	6,850	4,380	11,230
Middle	Transf.	1,540	610	2,150	2,760	2,030	4,790	3,410	3,120	6,530
Bucks	Non-Tr.	600	3,390	3,990	940	6,690	7,630	1,170	8,840	10,010
Area	Total	6,530	5,650	12,180	9,750	11,970	21,720	11,430	16,340	27,770
Capacity	4 Yr.	3,670	2,520	6,190	4,960	3,650	8,610	5,560	4,400	9,960
Upper	Transf.	1,150	220	1,370	1,840	810	2,650	2,100	940	3,040
Bucks	Non-Tr.	850	2,890	3,740	1,980	4,130	6,110	2,650	4,640	7,290
Area	Total	5,670	5,630	11,300	8,780	8,590	17,370	10,310	9,980	20,290

TABLE 2. CAPACITY DATA
BUCKS COUNTY INSTITUTIONS ONLY

			1967			1975			1980	
		Day	Eve.	Total	Day	Eve.	Total	Day	Eve.	Total
Capacity,	4 Yr.	250	250	500	400	450	850	500	580	1,080
Bucks	Transf.	610	370	980	880	530	1,410	1,020	620	1,640
County	Non-Tr.	240	6,720	6,960	380	12,090	12,470	480	15,540	16,020
Total	Total	1,100	7,340	8,440	1,660	13,070	14,730	2,000	16,740	18,740
Capacity,	4 Yr.	–	–	–	–	–	–	–	–	–
Lower	Transf.	–	–	–	–	–	–	–	–	–
Bucks	Non-Tr.	–	2,570	2,570	–	5,510	5,510	–	7,440	7,440
County	Total	–	2,570	2,570	–	5,510	5,510	–	7,440	7,440
Capacity,	4 Yr.	250	250	500	400	450	850	500	580	1,080
Middle	Transf.	610	370	980	880	530	1,410	1,020	620	1,640
Bucks	Non-Tr.	240	2,580	2,820	380	4,580	4,960	480	5,880	6,360
Area	Total	1,100	3,200	4,300	1,660	5,560	7,220	2,000	7,080	9,080
Capacity,	4 Yr.	–	–	–	–	–	–	–	–	–
Upper	Transf.	–	–	–	–	–	–	–	–	–
Bucks	Non-Tr.	–	1,570	1,570	–	2,000	2,000	–	2,220	2,220
Area	Total	–	1,570	1,570	–	2,000	2,000	–	2,220	2,220

TABLE 3. INPUT DATA, BY SUBJECT
DAY PROGRAMS ONLY

		1967				1975				1980			
		B.C. Stud.	Area Capac.	%	B.C. Cap.	B.C. Stud.	Area Capac.	%	B.C. Cap.	B.C. Stud.	Area Capac.	%	B.C. Cap.
Liberal Arts	4 Yr.	1,200	10,770	11.1	60	1,860	13,040	14.3	90	2,280	14,010	16.3	110
	Transf.	190	3,090	6.1	280	290	7,890	3.7	400	350	10,840	3.2	470
	Non-Tr.	–	20	–	20	–	40	–	40	–	50	–	50
	Total	1,390	13,880	10.0	360	2,150	20,970	10.3	530	2,630	24,900	10.6	630
Business	4 Yr.	180	2,450	7.3	40	300	2,780	10.8	60	360	2,960	12.2	70
	Transf.	120	710	16.9	130	180	960	18.8	190	220	1,070	20.6	220
	Non-Tr.	160	2,490	6.4	–	240	5,880	4.1	–	300	8,370	3.6	–
	Total	460	5,650	8.1	170	720	9,620	7.5	250	880	12,400	7.1	290
Engineering	4 Yr.	280	1,520	18.4	–	420	1,630	25.8	–	500	1,690	29.6	–
	Transf.	10	210	4.8	–	20	490	4.1	–	20	670	3.0	–
	Non-Tr.	340	4,950	6.9	70	500	8,370	6.0	110	610	10,150	6.0	140
	Total	630	6,680	9.4	70	940	10,490	9.0	110	1,130	12,510	9.0	140
Teacher Education	4 Yr.	680	990	68.7	–	1,060	1,620	65.4	–	1,290	1,970	65.5	–
	Transf.	120	750	16.0	200	190	1,260	15.1	290	230	1,580	14.6	340
	Non-Tr.	–	–	–	–	–	–	–	–	–	–	–	–
	Total	800	1,740	46.0	200	1,250	2,880	43.4	290	1,520	3,550	42.8	340
Nursing	4 Yr.	170	100	170.0	–	270	130	207.7	–	320	140	228.6	–
	Transf.	–	380	–	–	–	400	–	–	–	400	–	–
	Non-Tr.	140	660	21.2	–	200	1,580	12.7	–	240	2,160	11.1	–
	Total	310	1,140	27.2	–	470	2,110	22.3	–	560	2,700	20.7	–
Trade & Industrial	4 Yr.	20	3,100	–	–	–	–	–	–	–	–	–	–
	Transf.	–	–	–	–	–	–	–	–	–	–	–	–
	Non-Tr.	20	3,100	.6	–	40	3,950	1.0	–	50	3,810	1.3	–
	Total	20	3,100	.6	–	40	3,950	1.0	–	50	3,810	1.3	–
Continuing Education	4 Yr.	–	–	–	–	–	–	–	–	–	–	–	–
	Transf.	–	–	–	–	–	–	–	–	–	–	–	–
	Non-Tr.	310	120	258.3	–	440	170	258.8	–	560	170	329.4	–
	Total	310	120	258.3	–	440	170	258.8	–	560	170	329.4	–
Secretarial	4 Yr.	–	–	–	–	–	–	–	–	–	–	–	–
	Transf.	–	–	–	–	–	–	–	–	–	–	–	–
	Non-Tr.	110	1,750	6.3	140	180	3,180	5.7	230	220	4,170	5.3	290
	Total	110	1,750	6.3	140	180	3,180	5.7	230	220	4,170	5.3	290

TABLE 3 (Con't). DAY PROGRAMS ONLY

		1967				1975				1980			
		B.C. Stud.	Area Capac.	%	B.C. Cap.	B.C. Stud.	Area Capac.	%	B.C. Cap.	B.C. Stud.	Area Capac.	%	B.C. Cap.
Medical Tech.	4 Yr.	30	250	12.0	–	50	270	18.5	–	50	280	17.9	–
	Transf.	10	–	–	–	20	10	–	–	30	10	–	–
	Non-Tr.	–	80	–	–	–	90	–	–	–	100	–	–
	Total	40	330	12.1	–	70	370	18.9	–	80	390	20.5	–
Art	4 Yr.	90	890	10.1	–	150	1,160	12.9	–	170	1,320	12.9	–
	Transf.	20	–	–	–	30	–	–	–	40	–	–	–
	Non-Tr.	–	200	–	–	–	200	–	–	–	200	–	–
	Total	110	1,090	10.1	–	180	1,360	13.2	–	210	1,520	13.8	–
Music	4 Yr.	50	260	19.2	–	80	450	17.8	–	100	610	16.4	–
	Transf.	10	–	–	–	10	–	–	–	10	–	–	–
	Non-Tr.	–	10	–	–	–	20	–	–	–	20	–	–
	Total	60	270	22.2	–	90	470	19.1	–	110	630	17.5	–
Agricultural	4 Yr.	20	160	37.5	160	30	250	12.0	250	30	310	9.7	310
	Transf.	–	–	–	–	–	–	–	–	–	–	–	–
	Non-Tr.	–	–	–	–	–	–	–	–	10	–	–	–
	Total	20	160	37.5	160	30	250	12.0	250	40	310	12.9	310
Home Economics	4 Yr.	30	50	60.0	–	40	50	90.0	–	50	50	100.0	–
	Transf.	–	–	–	–	10	–	–	–	10	–	–	–
	Non-Tr.	–	–	–	–	–	–	–	–	–	–	–	–
	Total	30	50	60.0	–	50	50	100.0	–	60	50	120.0	–
Misc. 2 Yr. Non-Deg., and V/T	4 Yr.	–	–	–	–	–	–	–	–	–	–	–	–
	Transf.	–	–	–	–	–	–	–	–	–	–	–	–
	Non-Tr.	270	150	180.0	–	390	530	73.6	–	480	800	60.0	–
	Total	270	150	180.0	–	390	530	73.6	–	480	800	60.0	–
Total	4 Yr.	2,730	17,440	15.7	260	4,260	21,380	20.0	400	5,150	23,340	22.1	490
	Transf.	480	5,140	9.3	610	750	11,010	6.8	880	910	14,570	6.2	1,030
	Non-Tr.	1,350	13,530	10.0	230	1,990	24,010	8.3	380	2,470	30,000	8.2	480
	Total	4,560	36,110	12.9	1,100	7,000	56,400	12.4	1,660	8,530	67,910	12.6	2,000

TABLE 4. INPUT DATA BY SUBJECT
EVENING PROGRAMS ONLY

		1967				1975				1980			
		B.C. Stud.	Area Capac.	%	B.C. Cap.	B.C. Stud.	Area Capac.	%	B.C. Cap.	B.C. Stud.	Area Capac.	%	B.C. Cap.
Liberal Arts	4 Yr.	1,600	10,450	15.3	130	2,250	13,110	17.2	240	2,850	14,930	19.1	310
	Transf.	230	1,630	14.1	120	320	6,140	5.2	170	390	9,270	4.2	200
	Non-Tr.	–	800	–	460	–	1,930	–	680	–	2,670	–	810
	Total	1,830	12,880	14.2	710	2,570	21,180	12.1	1,090	3,240	26,870	12.1	1,320
Business	4 Yr.	1,220	13,580	89.8	110	1,720	18,120	9.5	210	2,180	21,110	10.3	260
	Transf.	440	1,220	36.1	150	610	2,450	24.9	210	770	3,160	24.4	250
	Non-Tr.	1,420	3,400	41.8	–	1,990	8,880	22.4	–	2,530	12,540	20.2	–
	Total	3,080	18,200	16.9	260	4,320	29,450	14.7	420	5,480	36,810	14.9	510
Engineering	4 Yr.	1,000	2,630	38.0	–	1,410	3,150	44.8	–	1,820	3,760	48.4	–
	Transf.	80	190	42.1	–	110	660	16.7	–	130	930	14.0	–
	Non-Tr.	1,080	6,310	17.1	410	1,510	11,950	12.6	500	1,860	15,140	12.3	550
	Total	2,160	9,130	23.7	410	3,030	15,760	19.2	500	3,810	19,830	19.2	550
Teacher Education	4 Yr.	1,740	8,760	19.9	–	2,430	9,320	26.1	–	3,100	9,630	32.2	–
	Transf.	500	170	294.1	110	700	500	140.0	150	880	740	118.9	180
	Non-Tr.	–	1,020	–	240	–	5,760	–	740	–	9,270	–	1,060
	Total	2,240	9,950	22.5	350	3,130	15,580	20.1	890	3,980	19,640	20.3	1,240
Nursing	4 Yr.	220	–	–	–	300	–	–	–	370	–	–	–
	Transf.	–	–	–	–	–	–	–	–	–	–	–	–
	Non-Tr.	200	320	62.5	20	290	940	30.9	30	350	1,350	25.9	40
	Total	420	320	131.3	20	590	940	62.8	30	720	1,350	53.3	40
Trade & Industrial	4 Yr.	–	–	–	–	–	–	–	–	–	–	–	–
	Transf.	–	–	–	–	–	–	–	–	–	–	–	–
	Non-Tr.	1,370	2,620	52.3	970	1,880	3,010	62.5	1,250	2,270	3,190	71.2	1,400
	Total	1,370	2,620	52.3	970	1,880	3,010	62.5	1,250	2,270	3,190	71.2	1,400
Continuing Education	4 Yr.	–	–	–	–	–	–	–	–	–	–	–	–
	Transf.	–	–	–	–	–	–	–	–	–	–	–	–
	Non-Tr.	4,580	5,690	80.5	4,570	6,300	11,540	54.6	8,830	7,950	15,450	51.5	11,610
	Total	4,580	5,690	80.5	4,570	6,300	11,540	54.6	8,830	7,950	15,450	–	11,610
Secretarial	4 Yr.	–	–	–	–	–	–	–	–	–	–	–	–
	Transf.	–	–	–	–	–	–	–	–	–	–	–	–
	Non-Tr.	280	1,740	16.1	30	390	3,870	10.1	40	470	5,350	8.8	40
	Total	280	1,740	16.1	30	390	3,870	10.1	40	470	5,350	8.8	40

TABLE 4 (Con't). EVENING PROGRAMS ONLY

		1967				1975				1980			
		B.C. Stud.	Area Capac.	%	B.C. Cap.	B.C. Stud.	Area Capac.	%	B.C. Cap.	B.C. Stud.	Area Capac.	%	B.C. Cap.
Medical Tech.	4 Yr.	10	230	4.3	–	20	280	7.1	–	20	310	6.5	–
	Transf.	10	–	–	–	20	–	–	–	20	–	–	–
	Non-Tr.	–	–	–	–	–	–	–	–	–	–	–	–
	Total	20	230	8.7	–	40	280	14.3	–	40	310	12.9	–
Art	4 Yr.	340	880	38.6	–	470	1,150	40.9	–	590	1,350	43.7	–
	Transf.	110	–	–	–	160	–	–	–	200	–	–	–
	Non-Tr.	–	–	–	–	–	–	–	–	–	–	–	–
	Total	450	880	51.1	–	630	1,150	54.8	–	790	1,350	58.5	–
Music	4 Yr.	50	40	125.0	–	70	40	175.0	–	80	40	200.0	–
	Transf.	10	–	–	–	10	–	–	–	20	–	–	–
	Non-Tr.	–	250	–	–	–	250	–	–	–	250	–	–
	Total	60	290	20.7	–	80	290	27.6	–	100	290	34.5	–
Agricultural	4 Yr.	70	–	–	–	110	–	–	–	140	–	–	–
	Transf.	–	–	–	–	–	–	–	–	–	–	–	–
	Non-Tr.	40	10	400.0	10	50	20	250.0	20	70	20	350.0	20
	Total	110	10	1,100.0	10	160	20	800.0	20	210	20	1,050.0	20
Home Economics	4 Yr.	50	–	–	–	70	–	–	–	80	–	–	–
	Transf.	40	–	–	–	50	–	–	–	70	–	–	–
	Non-Tr.	20	–	–	–	40	–	–	–	50	–	–	–
	Total	110	–	–	–	160	–	–	–	200	–	–	–
Misc. 2 Yr. Non-deg., and V/T	4 Yr.	–	–	–	–	–	–	–	–	–	–	–	–
	Transf.	–	–	–	–	–	–	–	–	–	–	–	–
	Non-Tr.	1,900	520	365.4	–	2,650	1,200	220.8	–	3,310	1,630	203.1	–
	Total	1,900	520	365.4	–	2,650	1,200	–	–	3,310	1,630	203.1	–
Total	4 Yr.	6,300	36,570	17.2	240	8,850	45,170	19.6	450	11,230	51,130	22.0	570
	Transf.	1,420	3,210	44.2	380	1,980	9,750	20.3	530	2,480	14,100	17.6	630
	Non-Tr.	10,890	22,680	48.0	6,710	15,100	49,350	30.6	12,090	18,860	66,860	28.2	3,880
	Total	18,610	62,460	29.8	7,330	25,930	104,270	24.9	13,070	32,570	132,090	24.7	5,080

TABLE 5. BASIC OUTPUT DATA
WHOLE AREA

		1967			1975			1980		
		Day	Eve.	Total	Day	Eve.	Total	Day	Eve.	Total
Number Going to PHSE	4 Yr.	1,370	5,300	6,670	2,230	7,480	9,710	2,720	9,500	12,220
	Transf.	230	1,150	1,380	380	1,800	2,180	460	2,300	2,760
	Non-Tr.	1,070	9,310	10,380	1,630	13,500	15,130	1,930	16,840	18,770
	Total	2,670	15,760	18,430	4,240	22,780	27,020	5,110	28,640	33,750
Unmet Needs – Whole Area	4 Yr.	1,360	1,000	2,360	2,020	1,360	3,380	2,420	1,730	4,150
	Transf.	250	270	520	380	190	570	460	190	650
	Non-Tr.	290	1,580	1,870	360	1,610	1,970	520	2,000	2,520
	Total	1,900	2,850	4,750	2,760	3,160	5,920	3,400	3,920	7,320
Unmet Needs – Lower Bucks Area	4 Yr.	710	440	1,150	1,060	580	1,640	1,220	710	1,930
	Transf.	170	160	330	260	90	350	300	80	380
	Non-Tr.	200	1,130	1,330	240	1,220	1,460	330	1,510	1,840
	Total	1,080	1,730	2,810	1,560	1,890	3,450	1,850	2,300	4,150
Unmet Needs – Middle Bucks Area	4 Yr.	400	280	680	640	420	1,060	830	590	1,420
	Transf.	60	110	170	100	100	200	140	110	250
	Non-Tr.	60	310	370	90	290	380	160	370	530
	Total	520	700	1,220	830	810	1,640	1,130	1,070	2,200
Unmet Needs – Upper Bucks Area	4 Yr.	250	280	530	320	360	680	370	430	800
	Transf.	20	–	20	20	–	20	20	–	20
	Non-Tr.	30	140	170	30	100	130	30	120	150
	Total	300	420	720	370	460	830	420	550	970
Unused Capacity – Whole Area	4 Yr.	10	2,270	2,280	–	3,090	3,090	–	3,730	3,730
	Transf.	20	640	660	290	2,960	3,250	410	4,430	4,840
	Non-Tr.	3,900	7,720	11,620	10,730	22,710	33,440	14,140	30,960	45,100
	Total	3,930	10,630	14,560	11,020	28,760	39,780	14,550	39,120	53,670

TABLE 6. BASIC OUTPUT DATA
BUCKS COUNTY INSTITUTIONS ONLY

		1967			1975			1980		
		Day	Eve.	Total	Day	Eve.	Total	Day	Eve.	Total
Number	4 Yr.	600	470	1,070	890	760	1,650	1,020	940	1,960
Going, if only	Transf.	120	450	570	180	750	930	210	940	1,150
B.C. Instit.	Non-Tr.	210	6,040	6,250	330	8,200	8,530	410	10,080	10,490
Available	Total	930	6,960	7,890	1,400	9,710	11,110	1,640	11,960	13,600
Unmet	4 Yr.	2,130	5,830	7,960	3,360	8,080	11,440	4,120	10,290	14,410
Needs, Going	Transf.	360	970	1,330	580	1,240	1,820	710	1,550	2,260
only to B.C.	Non-Tr.	1,150	4,850	6,000	1,660	6,910	8,570	2,040	8,760	10,800
Instit.	Total	3,640	11,650	15,290	5,600	16,230	21,830	6,870	20,600	27,470
Unused	4 Yr.	–	–	–	–	–	–	–	–	–
Capacity,	Transf.	–	–	–	–	–	–	–	–	–
if only B.C.	Non-Tr.	–	–	–	–	2,570	2,570	–	3,700	3,700
Instit. avail.	Total	–	–	–	–	2,570	2,570	–	3,700	3,700

TABLE 7. OUTPUT DATA
UNMET NEEDS, BY SUBJECT

		1967			1975			1980		
		Day	Eve.	Total	Day	Eve.	Total	Day	Eve.	Total
Liberal Arts	4 Yr.	670	20	690	960	10	970	1,140	20	1,160
	Transf.	120	–	120	160	–	160	180	–	180
	Non-Tr.	–	–	–	–	–	–	–	–	–
	Total	790	20	810	1,120	10	1,130	1,320	20	1,340
Business	4 Yr.	120	10	130	200	–	200	240	10	250
	Transf.	60	–	60	100	–	100	110	–	110
	Non-Tr.	10	20	30	30	–	30	40	10	50
	Total	190	30	220	330	–	330	390	20	410
Engineering	4 Yr.	160	10	170	230	–	230	270	10	280
	Transf.	10	–	10	10	–	10	10	–	10
	Non-Tr.	40	–	40	60	–	60	70	–	70
	Total	210	10	220	300	–	300	350	10	360
Teacher Education	4 Yr.	250	610	860	390	840	1,230	490	1,060	1,550
	Transf.	40	230	270	70	140	210	100	120	220
	Non-Tr.	–	–	–	–	–	–	–	–	–
	Total	290	840	1,130	460	980	1,440	590	1,180	1,770
Nursing	4 Yr.	50	210	260	80	300	380	100	370	470
	Transf.	–	–	–	–	–	–	–	–	–
	Non-Tr.	10	20	30	–	10	10	–	10	10
	Total	60	230	290	80	310	390	100	380	480
Trade & Industrial	4 Yr.	–	–	–	–	–	–	–	–	–
	Transf.	–	–	–	–	–	–	–	–	–
	Non-Tr.	–	–	–	–	–	–	–	120	120
	Total	–	–	–	–	–	–	–	120	120
Continuing Education	4 Yr.	–	–	–	–	–	–	–	–	–
	Transf.	–	–	–	–	–	–	–	–	–
	Non-Tr.	150	100	250	210	70	280	330	100	430
	Total	150	100	250	210	70	280	330	100	430
Secretarial	4 Yr.	–	–	–	–	–	–	–	–	–
	Transf.	–	–	–	–	–	–	–	–	–
	Non-Tr.	20	–	20	30	–	30	40	–	40
	Total	20	–	20	30	–	30	40	–	40

TABLE 7 (Con't). UNMET NEEDS, BY SUBJECT

		1967			1975			1980		
		Day	Eve.	Total	Day	Eve.	Total	Day	Eve.	Total
Medical Tech.	4 Yr.	20	–	20	20	–	20	30	–	30
	Transf.	10	–	10	20	–	20	20	–	20
	Non-Tr.	–	–	–	–	–	–	–	–	–
	Total	30	–	30	40	–	40	50	–	50
Art	4 Yr.	50	–	50	80	–	80	90	–	90
	Transf.	10	–	10	20	–	20	20	–	20
	Non-Tr.	–	–	–	–	–	–	–	–	–
	Total	60	–	60	100	–	100	110	–	110
Music	4 Yr.	20	20	40	20	30	50	20	40	60
	Transf.	–	–	–	–	–	–	10	–	10
	Non-Tr.	–	–	–	–	–	–	–	–	–
	Total	20	20	40	20	30	50	30	40	70
Agricultural	4 Yr.	10	70	80	20	110	130	20	140	160
	Transf.	–	–	–	–	–	–	–	–	–
	Non-Tr.	–	30	30	–	40	40	10	40	50
	Total	10	100	110	20	150	170	30	180	210
Home Economics	4 Yr.	10	50	60	20	70	90	20	80	100
	Transf.	–	40	40	–	50	50	10	70	80
	Non-Tr	–	20	20	–	40	40	–	50	50
	Total	10	110	120	20	160	190	30	200	230
Misc. 2 Yr. Non-Deg. and Voc. Tech.	4 Yr.	–	–	–	–	–	–	–	–	–
	Transf.	–	–	–	–	–	–	–	–	–
	Non-Tr.	60	1,390	1,450	30	1,450	1,480	30	1,670	1,700
	Total	60	1,390	1,450	30	1,450	1,480	30	1,670	1,700
Total	4 Yr.	1,360	1,000	2,360	2,020	1,360	3,380	2,420	1,730	4,150
	Transf.	250	270	520	380	190	570	460	190	650
	Non-Tr.	290	1,580	1,870	360	1,610	1,970	520	2,000	2,520
	Total	1,900	2,850	4,750	2,760	3,160	5,920	3,400	3,920	7,320
All Other (T&I, Secy., Med. Tech., Art, Music, Home Ec.	4 Yr.	100	70	170	140	100	240	160	120	280
	Transf.	20	40	60	40	50	90	60	70	130
	Non-Tr.	20	20	40	30	40	70	40	170	210
	Total	140	130	270	210	190	400	260	360	620

TABLE 8. BASIC INPUT AND OUTPUT DATA – PER CENT CHANGES FROM 1967

	DAY		EVENING	
	'75/'67	'80/'67	'75/'67	'80/'67
TOTAL STUDENTS				
Grand Total:	+42.1*	+77.2*	–	–
Day – Evening Totals	+53.2	+86.2	+39.4	+75.0
4 Year Institutions	+55.7	+88.3	+40.3	+78.3
2 Year and Transfer	+58.3	+91.7	+40.1	+75.4
Non-Transfer	+46.3	+80.1	+38.8	+73.0
UNMET NEEDS				
Grand Total:	+24.6*	+54.1*	–	–
Day – Evening Totals	+45.3	+78.9	+10.9	+37.5
4 Year Institutions	+48.5	+77.9	+36.0	+73.0
2 Year and Transfer	+52.0	+84.0	-29.7	-29.7
Non-Transfer	+24.1	+79.3	+1.9	+26.6
NUMBER GOING				
Grand Total:	+46.6*	+83.1*	–	–
Day – Evening Totals	+58.8	+91.4	+44.5	+81.7
4 Year Institutions	+62.8	+98.5	+41.1	+79.2
2 Year and Transfer	+65.2	+100.0	+56.5	+100.0
Non-Transfer	+52.3	+80.4	+45.0	+80.9
CAPACITY – WHOLE AREA				
Grand Total:	+62.7*	+102.9*	–	–
Day – Evening Totals	+55.2	+88.1	+67.1	+111.5
4 Year Institutions	+22.7	+33.9	+23.8	+39.8
2 Year and Transfer	+114.4	+183.4	+202.8	+337.8
Non-Transfer	+74.7	+121.6	+117.6	+194.9

*Day and Evening Combined.

APPENDIX B

STRUCTURE OF DATA

Factors Included, With Categories

This listing of variables and categories is provided primarily as background information; a good understanding of these breakdowns will greatly aid in evaluating the data summaries.

A particular combination of the first two variables determine the conditions for a single set of estimates of unmet needs, such as: unmet needs for Business-day programs in 1980. The next four variables are included in each set of estimates in such a way that they can be omitted or altered in specific ways. The separate sets of estimates cannot be altered (i.e., by combining day and evening programs for a specific subject, or by combining Art and Music, for example). The last variable is used to generate input data to a computer allocation procedure; the variable does not appear explicitly in the output tables.

A. Subject desired by students - offered by institutions, by time of day

1. Business - day
2. Business - evening
3. Engineering - day
4. Engineering - evening
5. Teacher Education - day
6. Teacher Education - evening
7. Nursing - day
8. Nursing - evening
9. Medical Technology - day
10. Medical Technology - evening
11. Art - day
12. Art - evening
13. Music - day
14. Music - evening
15. Home Economics - day
16. Home Economics - evening
17. Liberal Arts - day
18. Liberal Arts - evening
19. Agriculture - day
20. Agriculture - evening
21. Secretarial - day
22. Secretarial - evening

23. Trade and Industrial - day
24. Trade and Industrial - evening
25. Adult and Continuing Education - day
26. Adult and Continuing Education - evening
27. Miscellaneous 2 Year Non-Degree and Non-Transfer - Day
28. Miscellaneous 2 Year Non-Degree and Non-Transfer - Evening
29. Total Day
30. Total Evening

B. Year

1. 1967-1968
2. 1968-1969
3. 1969-1970
4. 1970-1971
5. 1971-1972
6. 1972-1975
7. 1975-1980

C. Type of Institutional Program

1. Four Year Degree
2. Transferable to Four Year Degree
3. Not Transferable to Four Year Degree

If an institution provided more than one type of program, the institution was included once for each type. No provision was made for combining types of programs, but additions can be made to specific types of capacity.

D. Region Location

1. Lower Bucks and a given commuting area
2. Middle Bucks " " " " "
3. Upper Bucks " " " " "

Provision can be made for combining regions into a Bucks County total.

E. Capability/Admission Requirement

1. High capability, equivalent to IQ of 127 and up
2. Above average capability - IQ of 120 to 126
3. Average capability - IQ of 99 to 119
4. Below average capability - IQ below 99

Provision can be made to ignore admission requirements by putting all facilities into the lowest admission requirement category.

F. Money Available/Required

1. \$1000 + per year
2. \$ 400 to \$999 per year
3. Below \$400 per year

Provision has been made to ignore the money factor completely by putting all students into the highest money available category.

One other variable is important in determining unmet needs for any given subject-time-year combination: strength of expectation for post high school education. The total number of potential students is derived by taking a percent of the seniors and adults in each strength of expectation class.

G. Strength of Expectation for Post High Education

1. Strong - already applied
2. Strong, but not yet applied
3. Weak
4. No Plans

Provision has been made to change the percent of each strength category included as potential students, but not to change relative number of seniors or adults in each strength category.

Summary: For any given subject, time of day, and year, the data and analysis procedures provide estimates of unmet needs by type of institutional program, by region location, by capability of student, by money available. The number of potential students can be changed by altering the percent in each strength of expectation category that will actually try to enter a post high school education institution.

Provision has also been made to add specific amounts of resource capacity with particular characteristics, to any given subject-time-year combination.

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